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MR. ABERNETHY'S

PHYSIOLOGICAL, PATHOLOGICAL, AND SURGICAL OBSERVATIONS;

DELIVERED IN THE

ANATOMICAL COURSE OF LECTURES,

At St. Bartholomew's Hospital.

On the Muscles to be found on the back of the Body.

Trapezius.—I have spoken of the *ligamentum nuchæ*, as being connected with the trapezius, but here it is necessary to explain what that is: it is really very insignificant in the human subject; but there is an elastic ligament, of a tough, yellowish substance, very strong but inanimate, which is called the ligamentum nuchæ. In animals it is very important, for it supports the head and neck when they are grazing, without the expense of muscular action. This ligamentum nuchæ you must be well acquainted with, for you must have seen it often when cutting up necks of veal and mutton. It is not necessary for the support of the head of man, but still he has a ligamentum nuchæ, though it is of an insignificant kind.

Now having spoken of the attachment of the trapezius, I come to speak of the *use* of it; and granting the posterior attachment to be the fixed part, the trapezius will draw back the scapula towards the vertebral column. But here is a muscle which may act in two different parts; there is no necessity for its acting altogether. Where a muscle is inserted into a sinew it acts on that sinew, but here is a muscle having a great breadth; the lower part of it may act separately, by drawing the scapula downwards; the upper part of it may act by drawing the scapula backwards and upwards. And again, the portion which extends itself towards the collar bone must be admitted to have a separate action, and that will turn the face to one side; and this concludes what I have to say about the action of the trapezius.

Latissimus Dorsi.—With respect to the action of this muscle, if the arm was elevated it would draw it to the side; having done that, it would draw it back towards the vertebral column, and then it would roll the arm inwards.

There are two great muscles which depress the arm; the pectoral muscle draws it forwards, the latissimus dorsi draws it backwards, and both concur in rolling the arm. Granting the arm to be the fixed part, then those muscles draw up the sides of the trunk to the arm. Now here I might repeat the advantages surgeons derive from a particular attention to the muscles. If a muscle is burst, you must bind the parts together in such a way as that they will approximate; if a muscle is divided, you can only close the wound by approximating the parts, and it is always convenient, when you dissect tumours, to put the muscles on the stretch.

Rhomboid Muscle.—Action of this muscle? Why it's as plain as a pike-staff that it will draw the scapula towards the vertebral column—draw the scapula backwards. But then here is a muscle, the parts of which may act separately; the lower part, the rhomboideus major, acting separately, will draw back the inferior edge of the scapula, and I might say, that the rhomboideus minor acting separately would draw back the superior edge of the scapula.

Levator Scapulæ.—This is an elevator of the scapulæ, and we are to associate with that the elevation of the shoulder joint.

Now here I show you three muscles today intervening between the trunk of the body and the bone of the shoulder, namely, the trapezius, rhomboid, and the levator scapulæ. Let me speak of them as one, and let me call upon you to remember that there were three described on the other front of the body, intervening between the trunk and the scapula, namely, the *subclavius*, *pectoralis minor*, and *serratus anticus*.

Now the question is, can we account, by the action of these muscles, for all the movements of the shoulder upon the trunk of the body? In all the motions of the shoulder, whether upwards, downwards, backwards, or forwards, the two bones move as if they were one piece; there is no motion between them, the ligaments will not permit it; but if the scapula has a motion at all independent of the collar bone, it is a motion upon the scapula and of the collar bone, on which it revolves, as it were, upon its axis. These things you will understand better as you understand the skeleton further, for no one will understand the skeleton from merely examining the dry bones; they must be seen connected with their natural ligaments before you can understand the real structure.

Serratus superior Posticus.—This muscle may be classed among the elevators of the ribs, and so far it is an inspiratory muscle; it may move the vertebral column, draw it back a little, and twist it in an inconvenient way.

Splenii.—There are two of these, the splenius *capitis* and splenius *colli*. What do they do? Extend the head and extend the vertebral column. They assist in turning the head round; and it is really curious how the head is turned round; it is not done by a single muscle, but by many muscles.

Complexus.—This muscle was, formerly, split into a great many; but thanks, say I, be to *Albinus*, for having it now considered as one. This is a muscle which, of course, supports the head, and draws the head backwards towards the vertebral column; but by drawing the head towards the transverse process of the vertebral column, it will turn the face to the opposite side, concurring with the *mastoideus* and trapezius on the same side; and in that same act, the *splenius* of the left side also concurring. Now you see there is a great necessity for muscles continually to support the weight of the head and neck: when we are quite upright, and have our faces looking straight forwards, the whole weight of the head is so poised on the top of the vertebral column, that it is perfectly balanced; it has no tendency to preponderate one way or the other. But it is poised as the false balance is; it has a greater lever on the one side than on the other, and the least preponderance of weight causes the head to drop forwards, and that too with no inconsiderable effect, as you see in people going to sleep. Well, then, there was a necessity for having the muscles continually to act for the support of the head, and this is the general use of the muscles which I have been describing.

Semi-Spinalis Colli, Rectus Capitis Posterior, and *Obliquus Capitis Superior.*—I will put all these three muscles together, for they must have the same use; they must support the weight of the head, and extend it.

Obliquus Inferior.—This is a muscle in bulk equal to all the rest; it is a very important muscle; it has a very efficient function to perform; it turns the head and the first vertebra round on the second vertebra.

Trachelo-Mastoideus is a muscle supporting the weight of the head, and extending it a little, turning it from one side to the other, but it is not a muscle of general importance.

Serratus Inferior Posticus, and *Serratus Superior Posticus.*—Both these are muscles of no importance. They act as inspiratory muscles, and will tend to steady the chest upon the vertebral column.

Longissimus Dorsi, and *Sacro Lumbalis.*—It is not worth while bothering one's self about the actions of these muscles; I have heard disputes about them, but they are not worth attending to. If, however, it were necessary to have muscles to support the head, and to draw it back, how much more is it necessary to have them to support the vertebræ? These muscles do support the weight of the vertebræ. If a person was inclined a little forwards, and these muscles were a little paralised, plump forward would he go with great weight upon his breast; but these are muscles to prevent that. And to give you an idea of the bulk of them, I would only ask you to look at the back of a skeleton, or an emaciated person, and what do you see? The vertebræ sticking up like a ridge. But look at the back of a fat person, and what do you see? Why, that which was a ridge, is here a furrow, with two fat lumps on each side. Well, then, these two muscles are continually acting for the support of the body; if they did not, the body would immediately fall forwards. And I would take this opportunity of saying, many of our motions are effected, not by muscular action, but by muscular relaxation. Suppose I wanted to make a bow, do you think I would use my abdominal muscles, and put these into full stretch? No; but I would relax them, and downwards would my nose drop. I remember, at a very early period of my life, having received a lesson of this kind: I caught cold, as the saying is; and, in my opinion, a very pretty little physiological book might be written on the subject of catching cold, for many people say that some colds are infectious: sneezing, for instance, by one man, will set another man about the same job. There are many

others who will say, upon my soul and body, there is no infection at all about colds. But what is called catching cold, is where you are exposed to a stream of air; and if the wind blows upon some delicate persons, or if a little bit of a blast from the door comes upon them, O! off they will go sneezing, and have a cold immediately. Well, I had caught a cold; I had inflammatory fever, acceleration of pulse, white tongue, and thirst; was bother-headed, could neither read nor do any thing else, and all my muscles ached most surprisingly. As I didn't know what to do with myself, I went to the play; and when I got there, *egad*, my loins ached in a most horrible manner; I was glad to get to a place where I could lean to support myself, and then there was no pain. I held up my arm, but the pain in the deltoid was intolerable, and down it dropped immediately. Well, you know, all this is followed by sneezing, then by coughing, and then by expectoration. Now, I say, can you account for all this, that just a blast of air blowing on one part of the skin, should so disturb the whole constitution? Can you account for it? To me the account seems easy enough; which is, that one part of the skin being affected, the whole of the skin becomes affected; a sort of shivering and suppression of secretion takes place; and then we have what I may call the electricity of the body, the nervous system, and the muscular system, all become disturbed, and there is febrile excitement. Now a little of *James' powder*, and throwing yourself into a perspiration, will take off these feelings pretty quickly. But this relates only to one kind of cold. People come into the hospital with their loins full of pains, saying, O my loins are very bad indeed; and if you let them do as they please, they will remain there for many months; that is, if you allow them to get up and use their muscles, the pains will continue; but if you keep them in bed, they will soon entirely go away.

Now I have got over these muscles as far as I have gone, as briefly as I could, because I don't like to be too minute with respect to any object; and I am firmly persuaded that it is a piece of affectation to describe these muscles with accuracy, for they have not exactly the same attachments in different subjects; it is the general view of the muscles on the back, which it is important for you to learn; and having learned that, you may afterwards learn more if you think proper.

LECTURES

ON THE

Diseases of the Nervous System,

BY

DR. CLUTTERBUCK.

Lecture VII.

On Idiopathic Fever.

The last form of *acute* inflammation of the brain to be noticed, is that termed *idiopathic fever*, by way of distinguishing it from what is called *symptomatic fever*, as produced by inflammation in general.

Now the term *fever*, according to its natural and obvious signification, expresses merely a general increase of heat in the system, probably from the Latin verb *fervere*, to be hot, and analogous with the corresponding term *pyrexia* from the Greek. Accordingly, in common language, (and justly in respect to the derivation of the word,) *fever* is a term applied to every state of system where the animal heat is morbidly increased. Now this, as you know, is the case in almost all inflammations, wherever seated, provided they are of a certain degree of intensity and extent; hence, such a febrile state of system has been considered as in most cases the mere effect of inflammation, and therefore called *symptomatic fever*, that is, fever symptomatic of inflammation, and of course a *secondary* affection. But it has also generally been supposed, that *fever* might exist as a *primary* affection, altogether independent of inflammation. This, it was alleged, is the case with the whole tribe of *continued*, *intermittent*, and *remittent fevers*; as well as those termed *specific*. For although these were often found combined with inflammation, this was supposed to be *secondary* and accidental only, and not the primary or essential part of the disease. Now such fevers, in order to distinguish them from *symptomatic* fever as resulting unequivocally from inflammation, were called by way of distinction, *idiopathic fevers*.

I shall endeavour to show you, that such distinction is unfounded; and, as a general rule, that there are no *idiopathic fevers*, without inflammation as their cause: in short, that *fever* in every form, or, in other words, every febrile state of system, that is, where the skin is preternaturally hot, the tongue furred, and the pulse quickened (these being the leading symptoms of such state) is the result of *inflammation*, and of this cause only. This I propose to prove to you, by detailing

the history of what is called *idiopathic fever*, when you will find reason, I think, to admit, that this form of disease furnishes no exception to the general rule I have just laid down. And you cannot but perceive the importance of this, in a practical point of view. For if a febrile state of body, whenever it occurs, is a *secondary* state of disease, an effect merely of *inflammation*, it ought not to engage our sole or principal attention in the cure; but we should rather look to the removal of the *inflammation* itself, as the *cause*; for this being removed, the *effect* will cease also; which experience shows to be the case. While the removal of the effect, the febrile state of system, is not necessarily followed by a cessation of the *inflammation*; which may still pursue its course: and more than this, it is sometimes found, that the exciting a febrile state, or aggravating it when already present, by the use of *stimulants*, is, in certain circumstances of inflammation, the most effectual means of removing the disease. This, we shall find, applies to proper or *idiopathic fever*, as well as to other inflammations.

I may as well tell you at once, what are the points I am desirous of establishing: they are these then: 1st, That there is no such thing as a *fever*, independent of local inflammation as its cause; consequently, that what is called *proper* or *idiopathic* fever, like all other febrile states of system, is always the result of inflammation; and that it no otherwise differs from a common case of inflammation of the lungs or any other organ, than in regard to the part where the inflammation is seated. 2dly, That the proper or primary seat of *idiopathic fever* is the *brain*, in the same way that the lungs are the seat of *pneumonia*, the liver of *hepatitis*, and so of others; the febrile symptoms, or general disorder of system, being in each case *secondary*, or symptomatic of the local inflammation. Thus, then, all febrile disorders, whether we call them *symptomatic* or *idiopathic* fevers, are compounded of a primary topical inflammation; and, as the effect of this, a general disorder of system, which, in Dr. Cullen's Nosology, is termed *pyrexia*, or a febrile state of body. Accordingly, we might make as many fevers as there are organs which, when inflamed, are capable of rousing the system into febrile action. In this way, we might have *pulmonic* fever, *cardiac* fever, *gastric* fever, *hepatic* fever, and so on; while those febrile states that are produced by inflammation of the brain might, upon the same principle, be termed *brain* fever, corresponding with what is called by physicians *idiopathic fever*; the primary seat and nature of which, I shall now endeavour to establish by proofs.

Now the *seat* and *nature* of a disease may be ascertained in two ways: *first*, by the symptoms or appearances that present themselves during life; *secondly*, by examination in the way of dissection, after death. These modes of investigation are both of them of considerable importance; but the greatest weight is due to the former, or examination of symptoms; because these, or some of them at least (the *essential* or *pathognomonic*) are always present; while there are many diseases that leave few or no traces behind them after death. I must premise here, that in an investigation of this kind, it is absolutely necessary to confine our attention to the simplest form of the disease; so as to exclude, for the time, all accidental combination with other diseases. Such combinations are exceedingly frequent in fever; but they throw no light upon the real or intrinsic nature of the disease, which, on the contrary, they rather tend to obscure. This is a point that has been too much neglected in most of the attempts that have hitherto been made to establish the theory of fever: the *accidental* circumstances having been confounded with those that are *essential*, and false conclusions come to in consequence. In ordinary practice, we find fever very often combined with inflammation in the chest, or in the abdomen, or other parts; all such cases are to be looked upon as *complicated* states of the disease, and which will be treated of hereafter. At present, our attention must be directed exclusively to fever in its simplest state.

Now I think you will best understand the subject, if I describe to you, as briefly as I can, a case of simple fever, such as it occurs nine times in ten in this climate, where the comparative mildness of the symptoms in the beginning, and the slower progress of the disease altogether, give us ample time for observation; whereas, in hot climates, fever is so rapid in its progress, and so quickly fatal; and, at the same time, so generally complicated with other affections, particularly inflammation in some of the abdominal viscera, that it scarcely affords an opportunity for investigating the intrinsic nature of the disease.

Suppose, then, you are called to a patient recently attacked with fever; not yet so ill, however, but that he is able to sit up. You find him languid and feeble, both unwilling and unable to make any considerable muscular exertion; his countenance dull and inexpressive; complaining of pain in the head, with heat and throbbing of the arteries of the head and neck, the throbbing increased upon stooping, or by any sudden exertion of mind or body; incapable of exerting the *mental*, no less than the *bodily*, functions; the skin hot and dry, either partially or generally, but always with the head hot, even though the extremities be cold, as they often are; the tongue furred, but

generally less white than in other diseases; the pulse weak, and soft to the feel; the appetite lost, often with nausea; the sleep, imperfect or disturbed.

Now by these few and simple characters, you may always recognise a case of proper or *idiopathic* fever, even where the disease is in its early stage, and slight in degree; and where the disturbance in the brain is not so strongly marked, as it afterwards becomes.

This is fever in its simplest and mildest form, such as is called by Huxham and other authors, the *low nervous fever*, the *typhus mitior* of Dr. Cullen.'

If you look at the disease in a more advanced stage, and a more violent and aggravated form; such as it appears under unfavourable circumstances, as confinement in an impure and heated atmosphere, with neglect of cleanliness and ventilation, or other mismanagement; you still find it presenting the same essential characters, differing from the former only in degree, but showing still more clearly the *seat* and *nature* of the disease. The pain in the head, indeed, may be no longer complained of; but this is owing to the want of consciousness, from the greater disturbance that is taking place in the brain. The heat of head, throbbing of arteries, and the flushing of the eyes and cheeks, are greater. The *sensorial* or proper functions of the brain, are more disordered, and in extreme cases nearly annihilated. The heat of skin is intense; the fur on the tongue has increased in thickness, and become darker coloured, often to the degree of absolute blackness; the pulse is soft, and easily compressible; with other symptoms that will be more minutely described hereafter. This is the other extreme of *simple fever*; differing from the former, or *milder typhus*, merely in degree. Accordingly, there are all the gradations possible between the two; the one, by continuance merely, especially if injudiciously treated, or neglected, readily passing into the other. This is the form of fever called, from its violence, *malignant*; and, from the tendency to decomposition observed in the fluids, *putrid fever*; called also *gaol*, *camp*, *hospital*, or *ship fever*, from the situation in which it has most frequently occurred: the *typhus gravior* of Dr. Cullen.

When fever occurs in young and vigorous subjects, living in a pure air, and in the spring season more especially; and also when it arises from such simple causes as exposure to cold, violent exercise, or temporary excess; the pulse becomes strong and full, the pain and throbbing of the head are unusually violent, and the heat of skin very great, with a tendency to profuse sweating. This constitutes what is called *inflammatory fever*, the *synocha* of Dr. Cullen, which never lasts above a few days, as it either terminates in health within this period, or degenerates gradually into the form of *violent* or *malignant fever* before described; under these circumstances, Dr. Cullen calls it *synochus*, as if it were a distinct *species* of disease, instead of a mere *variety*, as is really the case.

These are all cases of *simple fever*, differing from one another merely in degree; the difference depending upon foreign or accidental circumstances, not essential to the disease. And it is in this *simple* state only, that its true nature and character can be ascertained.

Now I ask, whether the characters just mentioned, and which are all that are essential to the disease, do not point out the brain as the part affected? It is the head that is uniformly complained of as the seat of pain, except where the disease is so violent, or far advanced, as to deprive the patient of his proper consciousness; then, indeed, he makes no complaint of pain in the head. The peculiar functions, again, that are performed by the brain, the *sensorial*, as we call them, that is, *sensation*, *voluntary motion*, and *intellect*, are constantly disturbed, in greater or less degree; sometimes they are in too excited a state, sometimes the reverse; but always disordered at the same time. This disturbance of the *sensorial functions* is in proportion to the violence and danger of the case; which proves that it makes an essential part of the character of the disease. And when it is considered further, that such disturbance makes no necessary part of other diseases, however violent and dangerous they may be, (provided they are simple and uncombined) we seem on these grounds to be warranted in referring fever essentially to the brain, as its proper seat.

It is true that fever is frequently accompanied with other symptoms; such as those of inflammation in the chest, or in the abdomen; and it has been said that these occur as frequently as the symptoms of brain affection, and have as great a right, therefore, to be looked upon as essential to the disease. This, however, is far from being a true statement of the case. The difference lies here; that in proper or *idiopathic* fever, however complicated, the brain affection is always present, though occasionally much obscured by the predominance of other symptoms; while the affection of other organs, is occasional and accidental only. No simple case of *pneumonia*, or *peritonitis*, or any other inflammation, except that of the brain itself, is attended with the essential symptoms of *idiopathic* fever. You will have the local pain, and the disturbed function of the part inflamed; and you may have likewise a high state of

pyrexia, or general febrile action. But you will not observe the prostration of muscular strength, the delirious tendency, nor the other *sensorial* disturbance; nor the brown tongue; which are the distinguishing characters of proper fever, and which, where they do occur, in combination with other inflammations, serve to show a complicated state of disease.

It is, perhaps, worth remarking here, that the pain in the head, which I mentioned as serving to mark the seat of disease in fever, often precedes for several days the general disorder, or febrile state of system; it takes place, in fact, before the disease is fully formed, and before, in strictness of language, it merits the title of *fever*; while it (the pain in the head) often remains after the fever has wholly gone off; or is renewed again by the most trivial causes that tend to excite or disturb the vascular action of the brain; such as stooping, or any sudden bodily exertion, or emotion of mind.

These then are the grounds upon which I found my opinion, in regard to the *seat* of fever; and that the disease consists in inflammation of the organ, may with equal justice be inferred, from a comparison of the symptoms with those of inflammation generally. You have only to apply the same tests that are employed in investigating other diseases, in order to arrive at this conclusion.

If, for instance, you found a person complaining of pain in the chest; and if, as is often the case, there was a sense of heat and throbbing in the part; if respiration were observed to be disturbed in any way, as by cough, expectoration, or difficulty of breathing; and, lastly, if along with these *local* symptoms you should find the skin hot; the tongue dry and coated; and the pulse accelerated,—you would not hesitate to conclude, from such a combination of symptoms, that the patient was labouring under inflammation in the lungs. Now a similar train of symptoms, denoting inflammation in the brain, are always present in *idiopathic fever*, in greater or less degree. There is head-ach, with increase of heat, and generally throbbing of arteries within and about the head; there is more or less of disturbance of all the proper functions of the brain; and there is altogether the same febrile state of system, (*pyrexia*) that accompanies other inflammations. What inference ought to be drawn from these circumstances, I leave to yourselves to determine. I shall only remark further upon this point, that it is the lot of a considerable number of medical students, during the period of their residence in London, to become affected with fever, and often in a severe and dangerous degree; owing either to confinement in the bad air of a dissecting room, to wounds received in dissection, to excessive application of mind, or other causes. Now I have attended many of these patients, and I never found one who was not convinced, from his own feelings, that the brain was the principal seat of his disease, and that the arteries of the brain were in such a state of violent action, as could only be referred to actual inflammation.

This brings us, then, to the *second* head of proof, namely, *dissection* after death. Now this has been considered as affording evidence that ought to be quite conclusive on the subject. But you will easily see that such an opinion is not maintainable, and that for different reasons. In the first place, *dissection* can only show alterations of structure, or states approaching to this; but not disordered action, which is the primary and essential part of all disease. Alteration of structure is only a consequence of disease, and requires some time for its production; commonly, several days at the least, and often much longer. Now, if a disease should prove fatal before time is given for effecting such a change, it is plain that dissection would not serve our purpose. Hence you may understand, why the most violent cases of fever, as well as of other inflammations in the brain, leave the fewest traces of disease behind them. They prove fatal, before such change can be effected. Besides this, the appearances observed after death are not necessarily those that existed during life; great changes take place in the distribution of the blood at the time of death, so as materially to affect the appearance of parts.

The essence of disease, as I have before remarked, is *disordered action*; inflammation itself is nothing more at first; *change of structure*, when it occurs, is only a consequence, more or less remote, of this disordered action. Now inflammation always disturbs and deranges the function of the part which it affects; and, when very violent and extensive throughout the organ, may interrupt it altogether. This may be instanced in the case of the kidney, as well as any other: violent inflammation of this organ produces a total suppresion of urine: and you cannot doubt that the same may occur with respect to the brain. Should such be the case, life might be very quickly destroyed, from the necessity of the functions of this organ to existence; yet no remarkable traces of the disease might be found after death.

That the structure of the brain is not necessarily or materially altered, during the course of even violent fever, may be very safely inferred from this circumstance; that often, in the worst forms of the disease, where for many days together the *sensorial*

functions have been nearly annihilated, a favourable turn takes place in the disease, by a kind of *crisis*, as it is called; and, in the space of a few hours or little more, the brain is enabled to resume its functions; free from disease, though with diminished powers. This could not possibly have been the case, if the structure had been materially changed; which serves to show that *fever*, like other diseases, is essentially a state of *disordered action*, producing, as a necessary consequence, a disordered state of functions; while change of structure, if it occur at all, is a remote effect, and by no means the cause of the symptoms that appear during life.

But there is still another reason, why dissection often proves incompetent to the elucidation of the nature of *fever*; namely, the occasional complication of this with other diseases, the latter sometimes destroying the patient, rather than the *fever* itself. Thus, in hot climates, inflammation very frequently arises in the stomach, or some other of the abdominal viscera, and kills the patient, where the fever itself might not have done so. In this case, dissection would be likely to show only the secondary diseases. So likewise in this climate, during the course of a fever, it frequently happens that extensive inflammation arises in the mucous membrane of the intestinal canal, sometimes spontaneously, but much more frequently, I believe, induced by the excessive use of calomel, and other drastic purgatives. This secondary affection hastens the death of the patient; and, in such cases, strong marks of inflammation are found in the intestines after death. This has led many to conclude, that an inflamed state of the mucous membrane makes an essential part of the disease. If this were true, such a state of membrane ought to be constantly met with; but it is only where symptoms of disordered action in the intestines take place during life, that such appearances are found.

But although the changes induced on the brain by fever, are not always or necessarily discoverable by dissection, you will find, in most cases, upon a careful examination after death, sufficiently evident marks of inflammation having existed in the brain during life. I have myself, indeed, met with no instance to the contrary, provided the patient really died of the fever, and not from any supervening disease, as is sometimes the case. In proportion as greater attention is paid to the subject, the proofs of inflammation existing in the brain, as the essential cause of fever, multiply. The appearances, however, are by no means peculiar to fever, nor distinguishable from those produced by the other forms of cerebral disease, and which have been already described. I have seen, indeed, much stronger marks of inflammation in the brain of persons dying of simple fever, than is met with in many cases of what is called *phrenitis*; and that where none but the ordinary symptoms of fever appeared, without any of those that are supposed to characterise the latter form of inflammation of the brain. Now such being the case, we are led into this dilemma: either the inflammation, in those cases, was the cause of the symptoms of fever present; or violent inflammation can exist in the brain, without giving rise to any symptoms, that is, without producing any disturbance of functions: a position which, I imagine, few are prepared to support.

Before proceeding further, it may be useful to draw a parallel between the three different forms of cerebral inflammation that have been mentioned; viz. *hydrocephalus*, *phrenitis*, and *idiopathic* fever. This, I expect, will facilitate your conception of the subject altogether.

Now with respect to *names*: the term *hydrocephalus*, or dropsy of the brain, is manifestly improper, as it applies only to an advanced stage of the disease. The peculiar signs denoting such an accumulation of fluid, are observed only after the disease has subsisted for some time; while the inflammatory state, that in which the disease primarily and essentially consists, is apt to be overlooked or misconceived. It should doubtless be called by some name denoting at once the seat and nature of the disease, and that in its simplest form. The term *meningitis*, which has been used by some, though ill-sounding, appears sufficiently characteristic; or the disease might be designated by the still more expressive language *of membranous inflammation of the brain*. The term *phrenitis* is perhaps admissible, from the long and constant use that has been made of it, to indicate that variety of cerebral inflammation that is especially characterised by active delirium. But the term *fever* is altogether objectionable, since it makes no distinction between a great number of diseases, to which different names have been given, and which often call for considerable difference of treatment. It is further objectionable as alluding to a secondary state of disease; while it leads to the neglect of the primary affection out of which it arises. The epithet *idiopathic*, that has been applied to fever, in order to distinguish it from other diseases that are attended with a febrile state of system, is absolutely improper; for it suggests an idea that is wholly groundless; namely, that *fever* properly so called, is an original and universal disease, and not the result of any primary topical affection. But I have said enough, I trust, to convince you that this is not true; but that what is called *idiopathic*

fever, is primarily and essentially an inflammation of the cerebral substance; and therefore might not unaptly be called *cephalitis*, a name that has been employed by some nosologists, to express inflammation of the substance of the brain, though it did not occur to them to include proper or *idiopathic* fever under this denomination.

The *nature* of the disease is the same, in all the three varieties mentioned. They all consist in inflammation, and differ merely as to the particular seat they occupy in the brain. 1. *Hydrocephalus* is an affection of the *membranes* only; analogous with *pleuritis*, or *peritonitis*, or any other inflammation of serous membrane. In its simplest form, (of which there are many examples,) it is unattended with any disorder of the *sensorial functions*; though in most instances, perhaps, the inflammation extends to the substance of the brain, so as to disturb more or less its functions; just as it happens with regard to the lungs; where we meet with many more cases of what is called *pleuro-peripneumony*, than of simple *pleurisy*. 2dly, In *phrenitis*, the disease is characterised by disorder of one of the *sensorial functions*; whence it must be considered as seated in the brain itself; not affecting, however, the whole organ, but confined to that part, whatever it be, that is particularly connected with the *mental* function. Unhappily, our physiology is not yet sufficiently advanced, to enable us to assign this with any precision; though there seems sufficient reason to believe, that the hemispheres are more especially devoted to the operations of mind or intellect. 3dly, In *idiopathic fever*, all the *sensorial functions*, (*sensation*, *voluntary motion*, and *mind*,) are at once disturbed; though unequally in regard to each other, and in different degrees at different times. Hence it may be inferred, that *fever*, strictly so called, is an affection of the whole organ; in which respect it differs from the other forms of inflammation in the brain, which are partial, and of limited extent; as we judge from the state of functions.

It must appear, therefore, from what I have now said, that the different forms mentioned of inflammation in the brain, are mere *varieties*, in the language of natural history, and not *specifically* different in nature, as they have generally been considered. This is further proved by their frequent intermixture, and their readily passing into one another: so that, at times, it is difficult to say, to which variety any particular case belongs. Thus in *hydrocephalus*, the symptoms at first are often undistinguishable from those of ordinary fever; the inflammation extending more or less to the substance of the brain, produces a corresponding disorder of functions. Nor is it till an advanced period of the disease, that the peculiar symptoms of *hydrocephalus* make their appearance; that is, when serous accumulation has taken place. This result depends chiefly upon the age of the patient. In very young children, the tendency to serous accumulation appears to be greater; or it may be, that the membranes in them are more disposed to inflammation, which, when it arises, runs more rapidly through its course. Whence it is, that inflammation of the brain and its membranes in infants, is rarely observed to have the same protracted duration as in adults: the disease either proves quickly fatal, from the violence of the inflammation, and the consequent disturbance and interruption of the vital functions; or it ends in serous accumulation; with a new train of symptoms, and under a new denomination. In a word, *hydrocephalus* in infants (supposing the inflammation to extend, as in most cases it does, to the brain itself) is the same disease as *fever* in adults, and they require a similar mode of treatment. Nor is it uncommon for *hydrocephalus* to exhibit signs of active and even furious delirium, (as far as this state can be judged of in infants;) such as, in an adult, would be called *phrenitis*. It is likewise common for inflammation of the brain setting out as *phrenitis*, to subside at length into what is called the *typhoid* state of fever; so that towards the end of the disease, the *sensorial functions* are equally obliterated in both. In the course of ordinary *idiopathic fever* again, the delirium sometimes assumes the active form observed in *phrenitis*; this however is commonly of short duration, the delirium soon subsiding again into the low or ordinary state. This occasional interchange of symptoms is probably to be ascribed to the casual shifting of the inflammation, from one part of the brain to another; or to the varying state of the inflammation with regard to particular parts of the organ, a circumstance common to inflammation wherever seated.

These differences in the characters of the different varieties of cerebral inflammation, are not satisfactorily elucidated by dissection; for the appearances observed are very nearly the same in all. In recent cases, whether of *hydrocephalus*, *phrenitis*, or *idiopathic fever*, we meet with the same turgidity of vessels, both on the surface and in the medullary substance; the same reddening, and thickening, and opacity, of membranes; and more or less of serous accumulation. So that it is quite impossible, from the appearances exhibited on dissection, to indicate the particular form of the disease that existed during life. Such appearances are proofs only of the general nature of the affection, as consisting in inflammation. Nor are they to be considered as the immediate cause of the *symptoms*; for these differ

widely, where the apparent changes in the brain are the same: thus confirming what I before stated to you, that the essence of disease is, in all cases, *disordered action*; a state that, of course, cannot be discovered after death, and of which the morbid appearances are only consequences, neither necessary nor constant. This readily accounts also for a fact that has been sometimes noticed; namely, that the symptoms peculiar to each of those diseases, have been observed during life, where no adequate cause of them could be discovered by dissection after death.

Lastly, I may remark to you, that the manner of attack and termination; the consequences; the occasional causes; and also the mode of treatment; are essentially the same in the three varieties alluded to; while, in all these respects, the analogy with inflammation in general, is perfectly maintained.

Sometimes, the attack is sudden and violent; accompanied then, generally, with rigors, or a *cold fit*, as it is called. This is soon followed by increase of heat; and this again by sweating, provided the patient is placed in favourable circumstances. At other times, the approach is gradual, and almost imperceptible; many days often elapsing before the disease attracts notice. The general course of the disease afterwards, corresponds in a great measure with the manner of attack. So that where this is sudden and violent, the disease is equally so, and runs rapidly through its course, terminating in many instances in profuse sweating. Whereas, when the approach is slow and gradual, the progress of the disease is likewise slow; the symptoms commencing mildly, gradually increase in violence; and the duration of the disease altogether is longer, while it subsides by slow degrees.

The *consequences* of these different forms of cerebral inflammation are essentially alike, and similar to those of inflammation in general. If the disease should continue beyond a certain period, it often ends in disorganisation of the parts concerned, in greater or less degree; thus laying a foundation for chronic disease, with imperfection or disturbance of function, in all the various ways that an organ so extensive and diversified in structure, is capable of. And thus are produced the numerous tribe of *nervous affections*, which receive their denominations chiefly from the particular function that suffers; but which all consist essentially in a disordered state of one or more of the *sensorial functions*, as will hereafter appear.

The *exciting* or *occasional causes of hydrocephalus, phrenitis*, and *fever*, are essentially the same. These different affections are all capable of being produced by the common causes of inflammation; such as the *taking cold*, and mechanical injuries of the brain. This organ, likewise, being under the influence of a greater variety of causes than any other, is excited into inflammation by many circumstances that have no effect on other parts. Thus *spirituous liquors*, and various *narcotic* substances, when carried to excess, readily excite inflammation in the brain; sometimes in the form of *phrenitis*, sometimes that of *fever*. *Mental emotions*, likewise, may induce one or the other of these, according to the nature of the cause, and the susceptibility of the brain to be affected by it. The different *febrile contagions* also, appear to induce inflammation of the brain, generally in the form of *fever;* the disease in each case, however, being of a *specific* nature, and different from common inflammation.

The *treatment* of all these varieties of brain affection, whether acute or chronic, is best conducted upon the same general principles as govern us in the treatment of other inflammations; that is, according to the state and stage of the disease, and the particular circumstances of the patient: modified, however, in some degree by the peculiar nature of the organ affected; a circumstance that influences the treatment of all diseases.

I shall next explain to you the varieties observed in the character of *idiopathic fever*. But this must make the subject of a future lecture.

FOREIGN DEPARTMENT.

Cases of congenital displacement of the heads of the Thigh Bones. Reported by Baron Dupuytren, in the *Repertoire* for October 1826.

"I have had opportunities," says Dupuytren, in the Memoir before us, "of seeing patients who, for several years, were confined to their beds, though labouring under no disease—though afflicted by no malady that was remediable by art, their only ailment (if such it could be called) being an original or congenital displacement of the thigh bone. I have seen others who had been tortured by innumerable applications of leeches, blisters, cauteries, and moxa. I recollect, particularly, the case of a young girl who, under the direction of a *blind mad woman*, had been subjected to the torment of twenty-one cauterizations by moxa, applied round the haunch, and all this brutality was practised for a congenital displacement, and which was therefore not remediable by art."

Moxa, as every one knows, is the uni-

versal panacea for all sorts of maladies, in the estimation of Baron Larrey; it is indiscriminately applied to contusions and tumours—to aneurisms and phthisis—in fact, the "petit moxa chinois," as he calls it, is made to suit every ill "that flesh is heir to." This is merely a hobby; and where is the great nob, whether in law, physic, or divinity, that has not a hobby? One searches for fossil remains—another thinks of nothing else, either at home or abroad, but fractured thigh bones. One cures every thing with moxa—another with blue pill; whilst a third sends all his votaries to read page 79 of "my book." There is a fashion in every thing; why not in medicine too? One leads the ton in the West end—another in the East. Why should they not, when they find satellites to follow them? "*Oh! imitatores servum pecus.*"

If Dupuytren had ever shown any disposition to be witty, we should be disposed to think that he intended to make merry at the expense of his brother Baron for his propensity to the cautery and moxa. As they have been old rivals for *academic* honours, he might be disposed to raise a laugh at Larrey, and slily call him an old woman and a mono-maniac, as if he were mad on one subject, and that the moxa.

As it is unquestionably important to establish a distinction between such derangements as may be benefited by medical treatment, and those which are beyond the reach of art, it is quite unnecessary for us to offer any remarks on the necessity of attending to the diagnosis which Dupuytren seeks to establish between congenital displacement of the femur and that which is the effect of accident, or the consequence of disease.

This particular affection has hitherto escaped the notice of systematic writers. The author of the Memoir before us says, that he could not find any account of it in any work with which he is acquainted; yet it cannot be of very rare occurrence, as he has met with twenty cases of it in eighteen years. In this displacement the head and the femur is removed some way from its natural situation, viz., the cotyloid cavity, and rests upon the external iliac fossa, being in fact, so far as position is concerned, strictly analogous to that which occurs in luxation of the femur backwards and upwards. Every writer on the subject has treated of two species of luxations in this situation, of which one is the result of accident, and usually produced by violence, the other is a consequence of a disease in the joint, producing such a destruction of the bones as to permit the head of the femur to be drawn up from its articular cavity and lodged on the dorsum of the ilium. To these two species we are henceforth to add a third, which is the result of original malformation.

In this affection, as well as in the others, the head of the femur is drawn upwards and outwards; the limb is shortened; all the muscles of the superior part of the limb are drawn towards the crest of the ilium, where they form a conical mass, the base of which is towards the crest of the ilium, the apex at the great trochanter. By this retraction of the muscles the tuber ischii seems almost denuded; the great trochanter is particularly prominent. The limb is rotated inwards, of course so are the point of the foot and the knees; the heel and calf of the leg being turned outwards, the thighs are inclined inwards, so much that they tend almost to cross one another inferiorly, and this obliquity increases as the pelvis becomes developed and the individual advances in age; the limb is thin and emaciated, particularly at its upper part.

If an individual with this affection be examined, there will be found a marked disproportion between the upper extremities and the lower, these being so short and thin as to appear as if they belonged to a person of inferior stature. The motions of the limb too are restricted, particularly those of abduction and rotation. In the standing posture, the superior part of the trunk (which is greatly developed) inclines backwards very much; the vertebral column projects forwards very much in the lumbar region, and presents a proportionate hollow posteriorly; the pelvis is placed almost horizontally on the femurs, and little more than the point of the toes is applied to the ground. All this arises evidently from the change of position of the ilio-femoral articulation, and consequently of the centre of motion to the unnatural situation which they now occupy, viz. the dorsum of the ilium. If the individual be laid on the back, and the muscles be allowed to relax, the symptoms of this infirmity disappear altogether, the thigh can be drawn downwards and pushed up alternately by even a slight effort, and the trochanter can be made to recede from or approach to the crest of the ilium; all this can be done without giving either pain or uneasiness. This fact, added to the circumstance of both limbs being affected similarly, and that affection existing from infancy, will fully establish the diagnosis.

What, it will doubtless be asked, is the cause of this displacement? Is it the effect of a disease attacking the fœtus in utero, and which has ended by resolution after birth? Is it produced by a forcible removal of the head of the bone from the cotyloid cavity, this latter becoming subsequently obliterated and no longer of any use? or, finally, as the cavity is produced by the union of three bones, is its imperfection caused by some obstacle to the development of those bones, as Breschet is induced to suppose?

Several modern anatomists have ascertained that, in the evolution of the fœtus, the parts of the osseous system last developed are those corresponding to the points on which the several depressions and eminences are to be situated, more particularly those in which several bones are united. These facts throw some light on the mode in which the displacement now under consideration is produced. This development of the pelvis, and particularly of the cotyloid cavity, being retarded by some means or other, the head of the femur is drawn upwards by the muscles, and the deformity continues for life. The management of such cases as these must obviously consist in palliatives; the whole of it may be reduced to the use of the cold bath to give tone to the muscles, and of a girdle, properly constructed, to confine and support the trochanters.

It is rather remarkable, that of the twenty cases of this original luxation which Dupuytren saw, seventeen were females. This may be merely accidental, yet it is a fact, now fully established, that malformations are more common in females than in males.

DR. BARRY.

To the Editor of THE LANCET.

SIR,—Philovacuum has said, that in your report of the proceedings of the Hunterian Society, there is "a serious misstatement with regard to Dr. Barry's theory of absorption;" but he does not say *what* that misstatement *is*.

Did Dr. Barry admit that Mr. Ellerby had succeeded in showing that "mere *pressure* was sufficient to prevent absorption," or did he not? I was present at that meeting of the Hunterian Society, and consider that he did most unequivocally admit it. Dr. Barry did admit that, which no man, having the evidence of his senses, could deny; but seeing the very awkward situation in which "the vacuum theory" would be left by this admission, he immediately claimed Mr. Ellerby's experiment as "*another demonstration*" of his theory, or of the proposition laid down in his book, viz. that *two conditions* are indispensably necessary to the accomplishment of absorption; viz. 1st, A free communication between the matter to be absorbed, and the thoracic cavities. 2dly. A free application of atmospheric pressure to the absorbing surface! He contended that it was of no consequence whether the one condition was removed by pressure, or the other by the formation of a vacuum; but that Mr. Ellerby's experiment supported instead of having weakened his theory, founded upon the admission of the before-named data. Mr. Ellerby was as much surprised as the rest of the company to hear this, and immediately said that "he could not discover any such opinions expressed in Dr. Barry's book; that he could not, in fact, find a single word said about the effects of *pressure* applied around the poisoned wound." How can Dr. Barry claim the experiment of Mr. Ellerby as a *demonstration* of *his* (Dr. B.'s) theory of absorption? A theory which sets forth that absorption can *only* take place by the agency of atmospheric pressure acting on the periphery of the body and driving the fluids toward a central vacuum. The ferule experiment affords *no such demonstration*, because whether there be a central vacuum or not, the pressure of the ferule will act with equal efficacy in preventing absorption. All that can be said, therefore, of this experiment is, that it *neither disproves* nor *demonstrates* the existence of such a vacuum. Surely Dr. Barry will not claim the *first* named condition requisite for absorption as *his*, or as involving any thing new. The *second* condition, which may be termed *his*, would be worth nothing, and, indeed, would be an absurdity without it; but the converse by no means holds. Dr. Barry was driven into the necessity of admitting the efficacy of pressure, and contended that the cupping glass acted "*in the same way*," according to the principles laid down in the 99th page of his book. The usual time for discussion having been exceeded, here the argument rested, as correctly stated in your 173d Number. That the Doctor shifted out of it by a *ruse de guerre* is very clear, as nothing can be found on the effects of pressure in that part, nor, indeed, in any other, of the book referred to.

Dr. Barry has reduced the circumstances indispensable to absorption to two; but he might safely have reduced them to *one*, namely, to a *free communication between the poisoned part and the thorax*. Cut off this communication, and no absorption, under any other circumstances, can take place. His second *indispensable* condition, or free application of atmospheric pressure to the part, is therefore worth nothing, proves nothing, for the thoracic vacuum; because it may remain, and absorption be prevented. This *indispensable* condition may be allowed to continue in full perfection, yet we find absorption to be effectually prevented by the removal of the *first*, viz. by cutting off the free communication between the part and the heart; *ergo*, this *indispensable* condition, to

say the least of it, must be *very inert*, if not *altogether unnecessary*.

What says "Philovacuum" respecting the action of the exhausted cupping-glass? That it removes the pressure of the atmosphere from a poisoned wound, and prevents absorption, "although *the communication is not cut off between the wound and the thorax*." But the communication between the wound and the thorax *is cut off* by the cupping glass, as regards the *returning* vessels, on account of their being situated nearer to the surface than the *supplying* vessels, and are therefore closed by the pressure of the edge of the glass, whilst the arteries are free from such pressure. If the veins were not compressed, the blood would flow out of the space covered by the glass as fast as it flowed into it, and there would be no rising of the part within the glass, which is entirely owing to the injection of the part with arterial blood unresisted by atmospheric pressure. The communication with the thorax of the veins and absorbents of a part, covered by an exhausted cupping-glass, is cut off by the atmosphere pressing the edge of the glass upon them, and that pressure will be in direct proportion to the perfection of the vacuum formed. How then can "Philovacuum" say that, in this case the communication is *not* cut off? It is cut off as effectually as it can be with a ferule under any given pressure, and there is *no proof whatever* that the *vacuum has done*, or can do that, which has been shown to be done by *mere pressure*, because there can be *no vacuum without pressure*.

"The application of *pressure* between a poisoned wound and the heart, is as old as that of the cupping-glass itself," and it may be added, is the only effectual way in which the exhausted cupping-glass can act to prevent the absorption of the poison from the part. *Nothing to the contrary has as yet been shown.* It must be remembered that Dr. Barry's theory of absorption is founded entirely on his theory of the circulation; but the experiments he has hitherto made on absorption, do not afford the least support to his doctrine of the circulation; they prove nothing, nor do they disprove any thing; therefore, as far as absorption is concerned, the circulation theory remains unsupported.

ANTIVACUUM.

Jan. 1st, 1827.

ROYAL INFIRMARY, EDINBURGH.

A new method of performing the Operation for the radical Cure of Hydrocele. By Dr. BALLINGAL.

JOHN BARCLAY, (aged sixty-four,) in whose case the subsequent operative peculiarity was evinced, states that he had a hydrocele on the left side about five years ago, which was then successfully treated by injection. In some short time after, he perceived a similar enlargement of the scrotum on the opposite side, which gradually increasing in magnitude and inconvenience, he was induced to seek that relief which he had experienced from operation in the former instance. He accordingly became a patient of the hospital on the 5th of the present month, under the care of Dr. Ballingal. The hydrocele with which he was affected on admission, was of the ordinary size, and had never been previously evacuated. On the 13th, he was brought to the theatre, "magna comitante caterva." to have the operation usual in such cases performed, as was supposed, until Dr. Ballingal, loading his syringe with equal parts of wine and water, discharged its contents—where, gentle reader, do you think? into the tunica vaginalis, to be sure. Oh! not at all, there would have been no novelty worth recording in such common-place practice as that. Where, then? you naturally exclaim: Pell-mell into the cellular tissue of the scrotum, "like shot through a holly bush," as one of the Fudge family has it. Well, and what then? Why, after waiting the prescribed period for the retention of the mixture in the sac, and asking the patient, did he feel any pain in the loins, it was deemed prudent to withdraw the injection; but, to the great astonishment of the spectators, scarcely a drop would flow. Extraordinary accidents requiring commensurate remedies, an incision (ineffectual compression of the parts having been made to dislodge the fluid) was immediately performed for its recovery, but with partial success. This mysterious disappearance of the "negus" is thus facetiously touched upon in the Hospital Journal:

"Dec. 13. Operation by injection was yesterday performed with equal parts of wine and water, and either from the opening in the tunica vaginalis becoming somehow or other obstructed, or from a portion of the fluid having passed into the cellular tissue of the scrotum, the injection did not entirely return!"

This curiously defined "some-how-or-other obstruction," it must be confessed, is rather an obscure account of a very plain blunder, produced by the fidgetty manipulation of the operator, in permitting the canula to move from the position in which

it was introduced. Mistakes, no doubt, will sometimes happen to the most expert and intelligent, but there are a few circumstances connected with this proceeding, for which the apologetic intervention of chance, insinuated in the explanation above, affords no satisfactory solution. First, it seems to have escaped the notice of the learned Professor, that many well-informed practitioners are now in the habit of delaying the process of injection in hydrocele, until the second evacuation, when the operation may be undertaken with somewhat more security and probability of success, from the contraction of the surfaces on which inflammation is to be excited. Aware, indeed, of the necessity of such precaution in a subject whose years and constitution rendered him susceptible of an unhealthy inflammation from the slightest cause, the writer presumed, that as soon as the young gentlemen of the Royal Infirmary had witnessed the important spectacle of drawing off the fluid, the patient would have been dismissed with directions to return when the water had again partially accumulated; but calculating on mere principle in the affairs of "the first clinical hospital in Europe," is quite an unnecessary exertion of the reasoning faculty. Second, it would appear, from the perhaps unprecedented measure of cutting down on the canula in search of the stray fluid, that Dr. Ballingal was not aware that in some instances, even where the injection has been judiciously employed, the whole or the greater portion of it is retained, and, what may surprise the surgical doctor still more, without producing any injurious effects, so that his incision was a supererogatory exercise of the scalpel. The results of these trifling errors of "omission" and "commission," were what might have been naturally anticipated; violent inflammation extending to the spermatic chord and urethra, by which a slight dysury was produced, consequent death of the cellular tissue of the scrotum, and the painful and protracted process of throwing off sloughs—all which the patient, now, however, apparently convalescent, has undergone. Mr. Hume has made many motions in Parliament of immeasurably less importance to the corporeal welfare of his countrymen, than one to prevent certain officers of this institution from meddling with surgical instruments. Should the honourable member deem the subject of sufficient moment to submit it to the consideration of the House of Commons, the perusal of a selection from the records of the Royal Infirmary on the occasion, may ensure him the novel gratification of finding himself on the side of the "majority" at the close of a division.

SCOTUS.

Edinburgh, Dec. 23, 1826.

THE FRENCH SCHOOL.

PARIS.—No. III.

Le secret d'ennuyer est celui de tout dire.

VOLTAIRE.

THE assistant medical officers of the Hospitals are the *Eleves*, who are divided into two classes, the *externes* and the *internes*. Every year, in the month of November, the administration holds a public meeting, to which all the medical students who have matriculated between the ages of eighteen and twenty-four are admitted. A forum is formed of five persons, two physicians and three surgeons, who are chosen by lot out of the number already attached to the hospitals, who have to determine on the appointment of a certain number of pupils as *Eleves externes*. Every physician or surgeon, who has a relation among the contending students, is excluded from the jury. The students receive then certain questions, drawn by lot, which they have immediately to answer; these questions are confined to anatomy, physiology, and surgery, and afterwards each of the candidates receives, by chance, a theme on the same sciences, to which he must give a written answer, and send it in without a name, but with the usual forms observed in the answers to prize questions. According to the manner in which they acquit themselves they are chosen, and every year eighty new eleves externes are appointed to the different hospitals, and a like number leave. In the surgical wards of the large hospitals, containing on an average from forty to fifty patients, four eleves are placed; and in the medical wards, containing from sixty to seventy patients, two. These eleves must attend the physician or surgeon at each visit, must see the patients regularly in the evening, and as often during the day as their cases may require, and must afford all the necessary surgical and medical aid required; dress the patients, bleed, cup, bandage, &c. as may be requisite. For this they receive no remuneration, nor do they live in the hospital; but the advantage of having this post is, after a year, each is admissible as a candidate for the situation of eleve interne, which is always much sought after, and attended with many advantages.

Each year twenty of the eighty externes are promoted to the *eleves internes*, who must not continue in office more than four years. The examinations are conducted as in the preceding form, but made somewhat more sharp. An unsuccessful candidate is allow-

ed to present himself a second year, but if he then fail he cannot afterwards be chosen. The situation of eleve interne is not unimportant; he has the inspection of about fifty patients, superintends the duties of the externes, keeps the necessary registers, collects the cases, reports the state of the patient on the preceding evening to the physician or surgeon at the morning visit, is allowed, in urgent cases, to prescribe for the patient, and makes the post-mortem examinations. Two *internes* remain day and night in the hospital in the chambre de garde, to receive accidents and attend to the casualties of the house, if the absence of their comrades should render it necessary. They do not live rent free in the hospital, but receive a few hundred francs a year as an equivalent for it.

Clinical Instruction.—In some of the hospitals *cliniques* are established, by which is to be understood the visit which the medical officer makes in company with the students, and the observations made by the former either at the bed-side or in the amphitheatre. After the visits have been made the parties usually retire to the operating theatre, and then the physicians or surgeon makes some observation on such and such a patient in ward St. Paul or St. Peter, No. 11 or No. 12. The operations are then performed, and after these come generally the consultations for the out-patients. These cliniques may all be attended free of expense, since the Professors are paid by the government. Of these cliniques there are two at the Hôtel Dieu, a medical and surgical; two at the Charité; two at the Hôpital St. Louis; one at the Pitié; one at the Hôpital des Veneriens; one at the Hôpital des Enfans; and the Clinique de Perfectionement, near the Ecole de Medicine. Each of these will be hereafter more particularly described. In addition to these cliniques, at many of the hospitals there are consultations, at which the physicians and surgeons deliver their opinions on the cases as they present themselves, a practice attended with great benefit to the student, and might be very easily followed at our public hospitals on the out-patient days.

To most of the hospitals the pupil can go without any formality, but in consequence of some disturbances which took place a few years since it is now necessary to obtain a ticket for admission to the Hôtel Dieu. A stranger must show a diploma, and a French student his certificate of inscription in order to obtain it. These tickets may be procured of Dupuytren any Thursday or Sunday morning, after he has seen his patients.

Having given a general sketch of the foundation, revenues, and administration of the Hospitals of Paris, it remains that we should examine their value as practical schools for medical education. For this purpose the principal only will be selected, and whatever they may present of peculiar interest, be noticed. Among these institutions, the Hôpital St. Louis holds a conspicuous place, and although inferior to the Hotel Dieu in size, is decidedly superior to it, or to any of the others in the manner in which it is conducted, and therefore possesses the first claim to our attention.

Hôpital St. Louis.

This Hospital, which was built during the reign of Henry IV., owes its origin to the prevalence of some fatal disease which reigned in Paris in 1606, and was supposed to be contagious; the Hotel Dieu, at that time the only public hospital, was so incommodious and badly managed, that it served only to accelerate the death of the unfortunates sent into it. St. Louis, at the time of its construction, was at a distance from any populous quarter of the city, and to prevent more effectually the spread of the supposed contagion, the architect surrounded it with a court 100 feet wide, enclosed within double walls. The hospital forms a parallelogram of 360 yards by 240, and thus presents a superficies of 259,200 feet. The principal buildings are situated around an area of 300 feet square toward the centre of the enclosure, and are two stories high; the attics of the building are large, but unemployed.

This hospital contains 1100 beds, and is destined principally to diseases of the skin. Some surgical and epileptical cases are admitted, but the number of beds occupied by these patients seldom amounts to more than 160.

The principal medical officers are Alibert and Biett, and the principal surgical, Richerand and Jules Cloquet.

The splendid work of Alibert on the diseases of the skin, has procured him a well-earned reputation. The opportunities afforded at this hospital of observing these affections, enabled him to present the public with a greater number of delineations of diseases of the skin, than had been before collected; and although his classification is in many respects inferior to that of Willan or even of Plenk, the individual descriptions which he has given, are, for the most part, very accurate, and form a very valuable appendix to Willan's work. The number of patients in this hospital with diseases of the skin, is not equalled in any other in Europe, and therefore affords an excellent opportunity of observing their almost infinite varieties, and the treatment most successful in their removal. Here are to be found

patients from all parts of Europe and the French colonies; and, without sacrificing truth, we may apply to this establishment the title which Alibert once gave it, "L'egout de toutes les contrées du monde." *

During the summer, Alibert gives a course of clinical lectures on the skin diseases every Wednesday morning, from nine to ten; the clinic of Biett, which is attended by all the medical strangers at Paris, closes about May or June. It would be difficult to name any country of Europe whose representative one could not find at Biett's clinic; Mexicans, Haytians, Brazilians, and North Americans, are also to be seen in the motley group.

The principal remedies at this hospital, are sulphur, vapour and water baths, arsenic, and low diet. Sulphur is given in all possible forms, and Alibert sometimes orders it to be put into the soup. The number of baths used is astonishing; to the 20,000 out-patients who come from the town and country in the course of a year, 150,000 baths are ordered, and the 9000 patients who are annually cured in the hospital, take baths almost daily; so that the baths, which are on a large scale, form an important part of the establishment, and occupy almost an entire wing of the building. The greatest number of these are the simple warm water and the sulphur baths. The common baths, and those containing alkaline and other solutions, amounting in all to 70, are disposed in two large rooms. The general vapour bath, as it is called, consists of a small room, having on the side a flight of steps for the patients to sit on; the vapour rises through a small hole made in the floor, and twenty or thirty persons may seat themselves on the steps at the same time. On each side is a dressing-room, always kept in a proper degree of temperature. In an adjoining room are a shower bath, a single vapour, and a partial vapour bath or *douche*; the vapour being applied to any particular part of the body by a pipe, the orifice of which may be enlarged or diminished at pleasure. In another part of the hospital is the sulphur vapour bath, which can contain twelve patients at the same time. There is also a single bath of this kind, and another for partial fumigations, by which the fumes of mercury, or any other substances, may be applied to the face or other parts of the body, without being inhaled. These baths are appropriated to the use of the male and female patients on alternate days, and can be renewed as many times in the day as may be required. Sulphurous fumigations appear to have fallen into discredit, on account of their being found to irritate the lungs too much, and produce congestions in the head. The sulphur baths are now generally employed instead.

Mr. Gales, who was formerly apothecary to the hospital, imagined that he had discovered animalculæ in the vesicles of the itch; he contrived to convince Latraille of their existence, as well as the greatest part of the members of the committe appointed by the Academy of Sciences. In the Dictionary of the Medical Sciences, (Art. *Gale*,) there are engravings given of these insects, which are dignified with a peculiar order and genus. The great number of itch patients within, and coming to the hospital, has allowed of a great many experiments to be made on the treatment of the itch, and these have led the experimentors to the conclusion, that there is nothing like sulphur, which is applied in every form; but the best appear to be the solution of sulphuretted hydrogen gas, and the pommade hydrosulphurée, the manner of using which will be presently described.

A combination of sulphur with potass, applied either in the form of ointment or solution, is the most effectual and the most convenient remedy for the itch. The following are some of the forms recommended by Alibert, Biett, and Dupuytren.

The ointment most used at St. Louis is composed of two parts of sublimed sulphur, one part of purified potass, and eight parts of lard. This is given to the numerous out-patients coming to the hospital, in little packets, with directions to rub it on the skin thrice daily, and to use the sulphurous baths of the hospital once every day for a week, when they are dismissed quite cured. This ointment tinges the linen, and has some smell, which is not the case with the following:

Take of the *Subcarbonate of potash*, ʒij;
Water, ʒj;
Olive oil, ʒiv;
Flowers of sulphur, ʒv;

dissolve first the subcarbonate in warm water, and add gradually the oil to form a soap, then add the sulphur, and mix the whole carefully. This pommade is improved by the addition of two drachms of camphor, which covers the smell of the sulphur, and, on account of the soap formed with the alcali and oil, does not soil the linen. M. Lugot, of St. Louis, has particularly recommended the following form, which he asserts combines all the advantages afforded by the others, without soiling the linen, a considerable thing in poor-houses and other large establishments, where patients having the itch are admitted. He calls it the *sulphuro-soapy ointment*; it is composed of equal parts of white soap and sulphur. The soap,

* Casper's Characteristik der Franz. Medizin.

after having been rasped, is to be dissolved in water by trituration; the solution is passed through a cloth, and the sulphur is then gradually added.

There are some cases in which the use of a liquid may be preferable to that of the ointment; the lotions used by Alibert with great success in the cure of itch, are made as follows:

No. 1.

Take of the *Sulphuret of potass*, ʒj, or. ʒij;
River water, ℔j.

No. 2.

Take of *Muriatic acid*, ʒj, or ʒij;
Distilled water, ℔j.

Put one ounce of each solution into four ounces of warm water, and let the patients wash with a sponge. This mode of using the sulphuretted hydrogen gas, which is abundantly disengaged, is much praised by Alibert, and used by a great number of the Parisian practitioners. The patients appear very much pleased with this substitute for the ointment, and eight days is always sufficient to cure the most inveterate forms of the disease. Dupuytren uses in the Hotel Dieu, a solution containing,

Sulphuret of potass, ʒiv;
Water distilled, ℔j;
Sulphuric acid, ʒiv.

This solution is used twice in the day for six or seven days, during which time a tepid bath is taken once a day. Dupuytren tells the people to pour some of the solution in their hands, and rub themselves well; it should be kept in well-secured bottles. It would be right during the cure of the itch to let the patients take sulphurous baths, or if the skin should become too much irritated by any of the formulæ used, tepid baths.

Many persons have contended that the itch is sometimes epidemic, and sometimes endemic; but during the many years that Biett has been physician to St. Louis, he never met with any thing which could be interpreted as being favourable to such an opinion but once, namely, in the summer of 1818, when the temperature was very high, and the season remarkably dry. He examined 66 of these patients with great care, and found that the disease was eczema rather than scabies. He does not consider that it is endemic, for in those provinces where the itch is most frequent, as in Bretagne, in the Canton of Lausanne, and in the high valleys of Switzerland, the habits of the people are filthy, and their diet bad; the inhabitants of Lower Brittany, for example, wear the skins of animals, live in huts, or rather caves, below the surface of the ground, and indulge in spirituous potations, and their consequent excesses. Many of the ancients considered that the proximate cause of the itch was the presence of an animalcula between the epidermis and skin. Redi, an Italian, described some insects which he thought he had seen in the itch pustules, as early as 1685; the same assertion has been repeatedly made by Fabricius Hildanus, Gaubius, and Morgagni, but the subject was almost unknown to the public, until Dr. Gales renewed the investigation, and declared that he had seen these beings in thirty five patients at St. Louis. He engaged a celebrated draughtsman to copy some of them, and these were afterwards shown to the academy; a committee was appointed to examine into the matter, and they agreed in saying that they also had seen them. Latreille in his Genera Crustaceorum, and, indeed, most entomologists since his time, have named them *sarcoptes scabiei*, and placed them with the family of the *acari*. Linneus has placed them in the class aptera, and has called them *acari scabiei*. Geoffroy has called them *cirons de la gale*, and De Geer, *mittes de la gale*. They have been drawn in the Dictionnaire des Sciences Medicales, and are represented as having six legs, and two small horns, magnified 250 times, so that they appear as large as ordinary beetles. Alibert has carefully examined many scabious patients, and declares he could never find any sarcoptes or acari; and Biett, who is a very careful and reflecting man, has examined a large number of patients with the person employed by Gales to draw the insects, but they could never discover any in the vesicles under any circumstances. The painter afterwards owned to Biett that he had never seen any one of the insects in the itch vesicles or pustules, but always outside them. Lugot continued these investigations in 1819, 1820, and 1821, with the strongest lens, but with the same result as the preceding. This is strong authority against the *vital itch*, and goes a great way to upset the force of the observations of Gales and the others.

The obstinacy of *Tinea* is well known, and according to Alibert's confession, it is no less difficult to heal at St. Louis's than at St. George's. The division which Alibert has made of tinea, is one of the least exceptionable in his classification; but even here, the incongruity when compared with Willan's is self evident. He has described his tinea favosa, T. granulata, T. furfuracea, T. asbestina, and T. muciflua. Now the favosa might be also furfuracea, and the asbestina the granulata; colour and figure must be more decisively separated than in the present case, to enable the practitioner to carry such a classification to the bed side.

THE LANCET.

London, Saturday, Jan. 6, 1827.

THE perversion of the College of Surgeons from the purposes the Legislature designed it should accomplish, ought to act as a salutary lesson to the framers of Charters and Acts of Parliament. Although the present Charter designates the College as belonging to the entire body of English Surgeons; and although it expressly states, "*that they, for ever hereafter, shall be and remain by virtue of these presents, one body corporate and politic;*" yet, from a misnomer in the framing of the clause, which prescribes the mode in which the elections of the Council were to be conducted, it has, in point of fact, been the property of the Council only, and the Members at large have not participated, in the slightest degree, in the general conduct and government of their own establishment. If the injurious effects which the obnoxious and unconstitutional principle of self-election and irresponsibility had been comtemplated when his late Majesty granted the Charter in question, surely that benevolent Monarch would have paused ere he attached his sign manual to an instrument, under the sanction of which it was certain there would be perpetrated acts tending to the pecuniary aggrandisement of those whom it protected, and of oppression and degradation towards those who were bound to submit to its legal though unjust impositions. From a careful perusal of its preamble, we fearlessly contend, that, in petitioning the Legislature, the MEMBERS are asking for no more than it was intended they should possess when the Charter was originally granted, viz. *the privilege of electing their own officers*—an advantage which, had it been intimated to his Majesty, or to his Privy Council, would, without doubt, have been secured to them—a privilege which was then, and is now, enjoyed not only by the Dublin and Edinburgh Colleges of Surgeons, but by the English College of Physicians; the OFFICERS of which are ANNUALLY *elected by the* FELLOWS. For what, then, are we asking? Is there any thing unreasonable or unprecedented in our request?—is there any innovation in that for which we seek? Is it to be endured, that the MEMBERS of the College of Surgeons are to submit with impunity to the exactions and degradations of a set of *self-elected, irresponsible* men, who frame whatever laws they please, without consulting the great body of the profession, *whom they do not represent*? What has the College done for its Members?—what has it accomplished for the community?—what has it added to our stock of scientific knowledge? Let the Council answer these questions, and we defy them to prove that it has, in any one respect, by any act or acts, contributed to the advancement of the science of Surgery, or that it has, in the slightest degree, benefited either its own Members or the public; on the contrary, it has, by its unjust regulations, become an object of contempt, and the Members have the mortification of seeing that their diplomas are no longer considered by his Majesty's Government as adequate criteria of professional qualification. Is it not most humiliating to the whole body of Surgeons, that before *Members* of the College can be admitted as Army and Naval Surgeons, that although they have the diploma of the College in their hand, that they must, in *addition*, produce certificates of attendance on Hospitals and Lectures? and that previously to their attaining such offices, they must submit to *another* examination before some paltry medical board? Such are the regulations sanctioned by his Majesty's Government—such is the respect it entertains for the diploma of the College, and such is the disrepute into which the diploma has fallen. Does not the Government by these regulations in effect say, 'We know the manner in

which the affairs of the College of Surgeons are managed—we are acquainted with many of the creatures who compose the Court of Examiners—we are acquainted with the nature and extent of their examinations, and we can place no confidence in either—the diploma is no test of merit.' It is impossible that these facts can be too often repeated, or that their pernicious tendency can be too frequently contemplated. If it be notorious that the ordeal which a candidate has to pass when he obtains his diploma be one that requires no effort of judgment, or scarcely any of memory to accomplish, it cannot be expected that a testimonial so acquired can be regarded as of greater value than a piece of blank paper. The College tells us in its "*Refutation*,"—"that the increased respectability of the profession may be principally attributed to the acts and regulations of the College. This advancement may be mainly ascribed to the more extended education which has been progressively required by the candidates for its diploma." Weak as the people of the College are, and impertinent as their conduct has been towards the Members; with a full knowledge of their ignorance, and the most ample experience of their arrogance, we really did not expect such a statement as this. That the respectability of the profession has increased, we do not deny; but that it has arisen from "the more extended education" required for the diploma, is a conclusion at once unwarrantable, false, and ludicrous. The Members of the surgical profession are now held in higher estimation than they formerly were, in consequence of the generally admitted importance of the profession to which they are attached. All persons having any pretensions to knowledge, are fully impressed with the importance of surgical skill, and, indeed, thousands and thousands of the public, male as well as female, could annually yield the most grateful testimony of its value, added to which the splendid discoveries of HUNTER, and the brilliant attainments and scientific labours of many of the surgeons of the present day, have combined to obtain for the members of our profession a degree of respectful consideration unequalled at any former period of our history.

These are the circumstances that have raised us in the scale of society, an elevation that has been retarded only by the disgraceful conduct of the Lincoln's Inn Legislators. The more "extended education," forsooth, required for the College diploma, "has been the cause of the increase of our respectability"—monstrous! what in sober sadness are the evidences of "the more extended education?" what are the examinations at the College?—we write it with a blush of shame for the court of examiners—a few questions in anatomy and surgery, and what they are pleased to term *physiology!* What a liberal education! what unbounded acquirements! to enable a candidate to triumph over such a scrutiny! Thus, it is a "more extended education," for a surgical diploma, that requires no examination in the classics; in not one of the collateral sciences, nor a single question even in chemistry, comparative anatomy, the practice of medicine, or the materia medica.

If the council deem a successful examination at the College an unerring proof of a liberal education on the part of the candidate, it affords us a fair opportunity of estimating the extent of *their own* intellectual acquirements. In truth, no men could have furnished in their corporate capacity, stronger evidence of bad taste, imbecility, and illiberality; and it affords us the highest satisfaction to perceivethat the MEMBERS are signing the PETITION *now lying at the* FREEMASONS' TAVERN, with an alacrity highly honourable to their feelings, and complimentary to their judgment.

The seventh number of the Yellow Journal (January) is commenced by Mr. Earle, with a few observations on "diffused cellular inflammation," or what has commonly been called phlegmonous erysipelas. Mr. Earle objects to this term, because he thinks it is "likely to be confused with common acute erysipelas," and because *he* considers erysipelas "essentially an affection of the skin," not perceiving that in avoiding Charybdis he has fallen upon Scylla, in steering clear of *erysipelas*, merged at once into *phlegmon*; which, in a practical point of view, to use his own words, "will be found of the greatest consequence." True it is, that phlegmonous erysipelas is neither "common erysipelas" nor phlegmon, and no body ever said it was; but since it is seated in the same structure with the latter, while it partakes of many of the characters of the former, there surely is no great harm in giving it a name which implies a relation to each. Besides, the term "cellular inflammation" means inflammation composed of cells, and cannot of course be tolerated. "Inflammation," (phlegmon) says Pearson, (Principles of Surgery, XV,) "ought to be carefully distinguished from fever, erysipelas, erethismus, or symptoms of irritation; scrofula, and from the specific action of certain poisons." But how can this be done, as to the first, if Mr. Earle's nosology, or we should rather say, a charitable construction of his meaning, were admitted? Lavoisier's nomenclature was beautiful, because it indicated the nature of bodies, and defined with considerable accuracy, the relation which one compound of elements held to another: thus, *sub*carbonas, carbonas, *super*carbonas, &c. And does not the term *erysipelas-phlegmonica* describe the half brother of erysipelas and of phlegmon, which, like erysipelas, is seldom idiopathic, and, like phlegmon, is seated in the cellular tissue, thus partaking, as in other respects, of the nature of both? It spreads like erysipelas, and like it is arrested by incision, it suppurates with phlegmon, but is diffused as erysipelas. Nay the very object of Mr. Earle's remarks is to recommend the treatment proposed and adopted by Mr. Copland Hutchison, "which consists in making very free longitudinal incisions, if possible, before suppuration has taken place, through the swollen inflamed integuments down to the fascia or muscles." We have often spoken of this treatment, and shall therefore dismiss the subject, by quoting one of Mr. Earle's cases, although we cannot help thinking that he used the lancet too freely. The patient was one of his dressers.

"Mr. C. E. B——, ætatis twenty-two of sanguine temperament and a free liver, on the 21st of April, in opening the cranium of a man who died of gangrenous erysipelas after injury to the head, pricked the middle finger of his right hand with a small spicula of bone: the wound was so small that it did not bleed. On going to bed, after entertaining some friends at dinner, and taking his share of the wine, his hand became afflicted with pain, which rapidly increased, with an intense burning sensation in the finger. He applied cold water, but finding no relief he had recourse to a bread and water poultice; notwithstanding which, he could obtain no sleep. On the following morning, eight leeches were applied, and a deep incision was made near the seat of the injury, but without any benefit: the inflammation continued to spread over the hand.

"I saw him about the middle of the day, at which time the first phalanx of the finger had perished. Distinct lines of inflamed absorbents could be traced up the arm, especially at its outer surface, but no tenderness or pain was felt any where except in the finger and hand, and there it was of the most intense and burning nature. Leeches were again applied, and the poultice repeated; his bowels were freely moved with calomel and tartar emetic, and senna and salts mixture. The pain in the hand continued unabated, and could only be tolerated by applying the coldest water.

"On the morning of the 23d, after a sleepless night, the hand had a puffy œdematous appearance, although the redness of the absorbents was diminished. The tongue was furred, and pulse hard and frequent; skin hot and parched, and countenance much distressed. Sixteen ounces of blood were taken from the arm, and cold constantly applied to the hand. Opii. gr. ij. pulv. antim. gr. iv. were given at night.

"24. He had passed a restless night, with constant state of vigilance. The arm was more swelled, and extremely painful; pulse 120, but softer. Opium was given in three-grain doses during the paroxysms of pain.

"25. The night had again passed without sleep, and at intervals there was delirium. The arm was more puffy, but the pain was rather diminished. Oleum ricini was given to obviate costiveness, and the opium continued. The following night passed tranquilly, but without sleep.

"On the 26th, the arm was again very painful, and much swollen. It was enveloped in a bread poultice, made with a strong watery solution of opium. His bowels were open; his pulse frequent, but not strong; tongue covered with much brown fur; and he was more disposed to delirium, with a most anxious sunken countenance. Thirty drops of guttæ nigræ were given at night, in addition to the former pills of opium.

"On the 27th, there was no very sensible change. Still no sleep at night.

"On the 28th, he was visibly much worse. The inflammation had extended to the deltoid muscle on the outer side, but did not appear to have reached the axilla on the inner side; nor was there any pain at this part, or disposition to extend over the pectoral muscle. From the insertion of the deltoid downwards, the whole arm was as tense as possible, and felt remarkably firm when pressed. The colour was a dusky red, rather more vivid at the upper margin. He had been delirious all night, and appeared rather comatose. His countenance was shrunken, wild, and ghastly. He was so weak that he could not sit up in bed; his pulse was irregular, feeble and fluttering; his tongue covered with thick brown fur. It was evident that he could not long survive under these circumstances, and although I had no evidence in favour of the practice in a similar case, I resolved to make large and deep incisions, provided it met with Mr. Lawrence's concurrence, who was so obliging as to visit him with me. Mr. L. entertained the same view of the case, and in his presence I made three deep incisions,—one commencing a little above the insertion of the deltoid, and more to the outer side, which extended down to the olecranon; a second, about six inches long, from just below the olecranon to the wrist; and a third, about three inches in extent, on the inner side of the fore-arm. No suppuration or sloughing was apparent, but the wounds gaped much, and the fat was very firm and granular. The wound at the outer side of the fore-arm bled very freely, to the extent of from thirty to forty ounces; after which the limb was enveloped in a large bread and water poultice. In the evening, when I saw him, his countenance was much improved; and his pulse was steady, soft, an full, about eighty beats in the minute. The pain had nearly subsided, except in his finger. He was ordered a dose of calomel and jalap, and to continue the opium after its operation.

"29th. He had passed the night tranquilly, but without sleep. His countenance was much improved, and comparatively cheerful; pulse stronger, and quite soft; arm quite easy; skin flaccid and pale.

"30th. He was nearly the same as yesterday; still no tranquil sleep could be obtained. In the evening there was great restlessness, with slight wandering. Two grains of opium, and six of camphor, were given to him at night, which, for the first time since the receipt of the injury, procured repose. He slept tranquilly for four hours, and awoke perfectly collected, and with the arm quite easy. When I paid my visit, I found him greatly improved in every respect. Suppuration had taken place at the wounds. His bowels were moved with infus. sennæ and tinct. jalapæ; and, after the operation of the medicine, he took solid food with much relish. The opium and camphor were repeated at night.

"From this time he continued to go on most favourably; very copious healthy suppuration came readily away from beneath the whole integuments of the upper and fore-arm; but no sloughing took place of the cellular membrane or fascia. By lighter dressing and bandaging, the whole rapidly filled up and skinned over. In a few days he was ordered the sulphate of quina in infus. rosæ, and was allowed to take a mutton chop and some claret.

"Nothing particular occurred during the subsequent treatment, except the formation of abscesses at the back and front part of the hand, which required to be freely opened: during the formation of these, the constitution again suffered some excitement. The extremity of the wounded finger was also very painful, until the lateral ligaments were divided, and the dead portion removed. The finger remained swollen for a considerable time, and was the last part to heal. He subsequently went out of town, when he rapidly regained his health and strength."

Mr. John Wood, the lecturer on chemistry of the Windmill-street school, has made a few observations on the "analysis of urinary calculi, particularly those of a mixed nature," which we shall quote for the benefit of those readers who may not find time to consult Henry and Marcet, Wollaston, Prout and Berzelius on the subject, and yet desire to analyse the calculi

they may extract or meet with. There is a very good digest of these authors in Ure's Dictionary of Chemistry, and a pretty copious analysis of Prout's book in THE LANCET, Vol. VII. page 391, and Vol. VIII., page 39. Mr. Wood has confined himself to a detail of "the most ready means of distinguishing calculi from one another, and of analysing them when the various ingredients are intimately blended together." For this purpose calculi must first be divided, that their different laminæ may be seen, and analysed separately.

"This operation should be carefully performed with a very fine saw, in that direction which will expose the most extensive surface when divided: a few grains should then be scraped with a penknife from each lamina, commencing with the nucleus, and proceeding towards the exterior; care being taken to select the central portion of each layer, that it may not be mixed with those on either side of it.

"The apparatus required is simple, and the materials are few in number. Some watch-glasses, a spirit-lamp, a brass stand with rings for holding the glasses, glass rods for stirring the solutions,* a pair of platina forceps, a piece of platina foil, a blowpipe, and some stoppered bottles, containing pure nitric, muriatic, and acetic acids, solutions of potassa, ammonia, carbonate of ammonia, and oxalate of ammonia, with distilled water, complete the list.†

"At present only six ingredients have been discovered in urinary calculi,—viz. uric acid, urate of ammonia, cystic oxide, phosphate of lime, oxalate of lime, and the phosphate of ammonia and magnesia. One or two other substances have been discovered, but in so few instances as not to deserve mention with the others: such are carbonate of lime, and the two substances discovered by Dr. Marcet, the xanthic oxide and the fibrinous calculus.

"These may be distinguished from each other by the following tests:—Three of them are soluble in cold solution of potassa,—the uric acid, urate of ammonia and cystic oxide. The first dissolves in cold solution of potassa, and evolves no ammoniacal odour during its solution. On the addition of dilute muriatic acid, a copious white precipitate falls.

"Urate of ammonia resembles the last, excepting that copious fumes of ammonia are disengaged during the solution, which may be detected simply by the smell, or by holding the stopper of the nitric or muriatic acid bottle over the glass containing the materials, when dense white clouds of nitrate or muriate of ammonia will instantly be produced; or a piece of moistened turmeric paper will be reddened, if held over the glass. In either case the effect will be much increased by gently heating the glass. This variety is also soluble, with comparative ease, in distilled water; a fact first noticed by Dr. Prout.

"*Cystic oxyde calculi* dissolve readily in cold solution of potassa, give off no ammoniacal fumes, and afford no precipitate on the addition of dilute muriatic acid.

"Four varieties are soluble in dilute acids, namely, the phosphate of lime, the phosphate of ammonia and magnesia, or triple phosphate, the oxalate of lime, and the cystic oxide; and, of course, any mixture of them. All these are soluble in muriatic acid diluted with four parts of water, and are all precipitated by ammonia and the fixed alkalies, excepting the cystic oxide, which, being equally soluble in acids and alkalies, is of course not affected. It may, however, be thrown down by carbonate of ammonia. These may be distinguished from each other in the following manner:

"*The phosphate of lime calculus*, when heated before the blowpipe, undergoes a very trifling alteration; no peculiar smell is perceived, excepting that of burning animal matter when the heat is first applied; the ash is white, not alkaline, dissolves readily and quickly in dilute acids; and the solution gives a precipitate with pure ammonia, and with its oxalate, provided there be no great excess of acid.

"The triple phosphate likewise suffers very little alteration before the blowpipe, unless the heat be very strongly urged, when it fuses imperfectly. Copious fumes of ammonia are disengaged. The ash is generally brown, not alkaline; is soluble, but not readily, in dilute muriatic acid, and precipitable in the form of crystalline grains

* "I have found small glass tubes, drawn out to a fine point, which may be readily done by the heat of a spirit-lamp, extremely useful for removing the fluid from the undissolved portion, which is easily effected by carefully immersing the point in the fluid, and applying the mouth to the other extremity. They are also useful for experiments on very minute quantities; as, by filling them with any fluid, and closing the larger end with the finger, the fluid is retained, and may be allowed to escape gradually in quantities as small as can possibly be required."

† "Pieces of broken window-glass answer for many purposes as well as watch-glasses, and are of course much more economical."

by ammonia, showing the re-formation of the triple phosphate. The oxalate of ammonia does not precipitate this salt when no phosphate of lime exists in combination with it.

"The peculiar fetid odour disengaged on the application of heat, and its ready solubility in both acids and alkalies, sufficiently characterise the cystic oxide.

"*The oxalate of lime calculus*, when heated before the blowpipe, blackens, is enlarged in volume, and leaves a great quantity of ash of an intense whiteness, which is soluble with effervescence in dilute muriatic acid, unless the heat have been intense and applied for a long time, when it dissolves quietly. Pure ammonia produces no precipitate from the solution, but a copious bulky one is thrown down by the oxalate of ammonia. This ash gives a deep red tinge to moistened turmeric paper, and is, in fact, pure lime.

"Thus far the analysis is sufficiently easy, the calculi or laminæ consisting of only one ingredient: few calculi, however, are of a nature so simple, the greater number being composed of two or more ingredients, sometimes in separate laminæ, sometimes blended together; and it is in the examination of these that the greatest difficulty is experienced, which I shall endeavour, by the following directions, in some measure to remove.

"*Uric Acid and Oxalate of Lime.*—Calculi of this composition, when digested in solution of potassa, washed and filtered, the potassa will dissolve all the uric acid, which may be obtained by adding dilute muriatic acid to the filtered liquor; and the solid residue, being heated before the blowpipe, will give the results mentioned above. This mixture generally decrepitates loudly when first heated.

"*Uric Acid and Phosphate of Lime.*—This mixture may be treated as the last; the uric acid being dissolved out by potassa; and the remainder may either be heated before the blowpipe, or dissolved in dilute muriatic acid, and will afford the results mentioned under the head of phosphate of lime calculi.

"*Uric Acid and Triple Phosphate.*—When calculi of this composition are digested in solution of potassa, the acid is separated; a very powerful ammoniacal odour is evolved; and the undissolved portion, when well washed and dissolved in dilute muriatic acid, will, on the addition of ammonia, be reconverted into triple phosphate, in the form of small acicular crystals.

"*Phosphate of Lime and Phosphate of Ammonia and Magnesia, or the Fusible Calculus.*—This variety is immediately recognised by readily fusing before the blowpipe into an opaque, white, shining enamel. It suffers very little diminution in bulk, gives off copious fumes of ammonia, and the ash is not alkaline.

"*Phosphate of Lime and Oxalate of Lime.*—These calculi do not fuse before the blowpipe, but swell up in proportion to the quantity of oxalate of lime they contain; give out no smell of ammonia; the ash is alkaline, and, if it be dissolved in dilute muriatic acid, the solution precipitated by ammonia and filtered, a precipitate* is produced in the filtered fluid by the oxalate of ammonia. Phosphoric acid will dissolve out the phosphate, and leave the oxalate.†

"*Uric Acid and Fusible.*—These calculi blacken before the blowpipe, diminish in bulk in proportion to the quantity of uric acid, evolve a powerful smell of ammonia, and presently fuse. The ash is very slightly alkaline, dissolves without effervescence in dilute muriatic acid, and is precipitable by ammonia. We are indebted to Dr. Wollaston for the following method of analysing calculi of this description:—Digest in cold distilled vinegar, which takes up only the triple phosphate; dilute muriatic acid will next separate the phosphate of lime; and the remainder, which will be the uric acid, may be recognised by the usual tests.

"*Triple Phosphate and Oxalate of Lime.*—This mixture does not fuse before the blowpipe, gives off a pungent ammoniacal odour, swells up in proportion to the quantity of the oxalate, and does not perceptibly diminish in quantity. The ash is more or less alkaline according to circumstances, dissolves readily in dilute muriatic acid, and, after ammonia has precipitated all it can throw down, a further deposition takes place in the filtered liquor on the addition of the oxalate of ammonia.

"*Fusible and Oxalate of Lime.*—This calculus differs from the last only in undergoing a partial fusion after the heat has been applied a short time.

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* This precipitate by oxalate of ammonia, after the pure alkali has produced its full effect, depends upon the existence of lime in the calculus, in combination with an acid easily separable by heat, leaving the lime in combination with the acid in which the ash is dissolved. From this combination ammonia will not detach the lime; it therefore passes the filter in solution, and is afterwards precipitated by the oxalate of ammonia. Now the only two acids of this kind hitherto found in calculi are the oxalic and the carbonic: if it be the latter, the calculus will dissolve, with effervescence, in any acid; if the former, the solution will proceed quietly.

† Dr. Wollaston.

"Many calculi contain uric acid in so small a proportion as not to influence their external character and appearance: in these it may readily be detected by placing a small portion of the calculus, or lamina, in powder, on a piece of glass, and adding a drop or two of pure nitric acid; heating it over a lamp very carefully to prevent it from charring. Should there be the smallest quantity of uric acid, a red colour will appear as the mixture becomes dry, and will be deep in proportion to the quantity of uric acid. A drop or two of a solution of pure ammonia, added when it has cooled, will develop a beautiful purple tinge. If it be an object to ascertain the exact proportion of uric acid, take any given weight of the calculus, and digest it in dilute muriatic acid, and the undissolved portion will be the uric acid."

In this way Mr. Wood analysed the collections of Mr. Bell, of Mr. Cross of Norwich, and of the surgeons of the Kent and Canterbury hospital, amounting in all to 167 specimens, of which Windmill-street furnished 93, Mr. Cross 39, and the surgeons of Canterbury 33. The relative proportion of each species to the whole collection, was as follows:

Uric acid, about	$\frac{1}{3}$ being	56,
Cystic oxide, about	$\frac{1}{84}$ being	2,
Oxalate of lime, about	$\frac{1}{24}$ being	7,
Phosphates, about	$\frac{1}{7\frac{1}{2}}$ being	22,
Alternating, rather more than	$\frac{1}{3}$ being	60,
Mixed, about.....	$\frac{1}{9}$ being	18,
Carbonate of lime, about	$\frac{1}{84}$ being	2,
		167

Only 26 of the 167 were free from uric acid; and 64 contained oxalate of lime; Many specimens were either entirely composed of uric acid and phosphates, or contained laminæ, in which they were mixed; but Dr. Prout supposes that the uric acid was combined with ammonia, which, indeed, is extremely probable. The two cystic oxide calculi, which are extremely rare, were found in the Windmill-street collection, and, according to Mr. Wood, there are but seven other specimens on record. Dr. Henry makes the frequency of this calculus to his total, as 10 to 985, or 2 to 197; Mr. Wood, as 2 to 167.

"A case of rupture of the urethra, treated by Mr. Travers," has appeared in THE LANCET (XI. 28); "Laceration of the urethra," by Mr. Green (X. 797); remarks upon it, (XI. 383,) and the case of strangulated hernia, by Mr. Tyrrell (XI. 397); so that Dr. Macleod's reporters have said nothing that was not known before. The Journal is a blank, or at best a losing prize; indeed, now that lotteries have ceased, Dr. Macleod appears to be the Bish of the advertising world—he puffs and gulls so well!

To the Editor of THE LANCET.

SIR,—It affords me great pleasure to congratulate you on what you have already done towards putting down monopoly and bringing forward merit. Whether the views I entertain of the medical profession coincide with those of yourself it is impossible to conjecture, but I will, with your permission, briefly state my opinions.

I consider, first,—That the College of Physicians is a relic of the ignorance and barbarism of the century which gave it birth. 2nd. That the College of Surgeons has rendered itself, by means of the unwise charter granted to it, a scene of disgraceful monopoly and exclusion. 3rd. That from the mode in which examinations are conducted at Apothecaries' Hall, these examinations have long since ceased to be thought any test of professional merit. 4th. That the division of the profession, as at present observed, into physician, surgeon, and apothecary, is absurd. 5th. That the public are grossly imposed upon by the belief that the physician has a greater stock of medical knowledge than the general practitioner, when it is a notorious fact, that nine-tenths of the physicians have infinitely less opportunities of observing diseases than the general practitioner. 6th. That the retail chemist and druggist, by practising the several departments of the profession, is highly culpable, and the system should be put down, if by no other means, by law. 7th. That no woman should be allowed to practise midwifery without possessing a certificate of having passed an examination on the various duties of the office. It would, doubtless, be better for women to give up the practice of midwifery altogether. 8th. That the medical profession should be divided into three great divisions. If we retain the old names, let the first be the phy-

sician, who shall be competent to practise every branch of the profession; in fact, he will be the general practitioner. For his attendance and prescriptions let him receive an adequate, but not exorbitant, fee. The second division shall be formed by the surgeon, whose duties will be those of the present consulting surgeon. And the third, the apothecary, or compounder of medicines; he shall retail drugs and make up the prescriptions of the physicians and surgeons. The apothecary shall be subject to the surveillance of the Society of Apothecaries, and the surgeon and physician to a college of physicians and surgeons. 9th. That the physician and surgeon should, before practising the profession, be subject to an examination touching his knowledge of anatomy, physiology, pathology, surgery, practice of medicine, midwifery, chemistry, materia medica, and medical botany; and the surgeon more particularly on the manual operation of surgery. 10th. That the candidate for a diploma of physician or surgeon should produce a certificate of having served an apprenticeship of one year to an apothecary. 11th. That the Court of Examiners should be annually chosen from amongst the most eminent, in the various departments, from and by their own body. 12th. That the examinations should be conducted publicly; and that certificates of lectures, hospital practice, &c., be received without any consideration as to time, place, or person. That the fee for such an examination should not be greater than adequate for the support of the officers of the college, the repairs of the building, the support of the museum, library, or any other source of instruction afforded by the college. 13th. That the candidate for a license to practise as apothecary should produce a certificate of having served an apprenticeship of three years to an apothecary, and be examined, publicly, as to his knowledge of chemistry, more especially pharmaceutical chemistry; of latin, if prescriptions continue to be written in that language; of materia medica, and medical botany. 14th. That the examination on anatomy, and on the operations of surgery, should be conducted with the subject before the party to be examined, and the examination on chemistry in the laboratory. 15th. That the trade of "Chemist and Druggist" should be done away with, so that there shall only be the wholesale druggist in this department.

I am, yours, &c.

A Radical Reformer.

Dec. 17th, 1826.

LONDON PHRENOLOGICAL SOCIETY.

Fourth Meeting of the Third Session, Dec. 21, 1826.

Dr. Elliotson, V. P. in the Chair.

Dr. Disney Alexander, Physician to the Lunatic Asylum, Wakefield, was elected a Corresponding Member.

Mr. David Dunn, Surgeon, was elected ordinary Member.

Mr. Bennett read a paper on "Instinct, considered as in connexion with Phrenology." Instinct, he considered, in the common acceptation of the word, to be a term applied to those feelings of animals which direct their actions and habits of life. Various opinions have been maintained on this subject, but the general error on the part of disputants is, that they do not sufficiently distinguish between the various instincts of animals; some contending that the habits and actions of animals are the result of mere instinct, whilst others argue that they evince a partial reason. He described several of the primitive instincts in animals, and their modifications; and as illustrations of the corresponding cerebral developments, he exhibited the skulls of various species of animals, and he showed that the degree of sagacity in an animal corresponded with the development of the anterior portion of the brain, where all the intellectual faculties have been found to reside.

A conversation ensued on this subject, and Dr. Gall's Observations on Instinct were referred to. This author states, that instinct is a feeling, or internal movement, independent of reflection, or of true will—an impulse which impels a living being to certain actions, without its having a distinct idea either of the means or end; that it is erroneous to consider instinct as a general faculty, and to endeavonr to explain by it all animal actions, however opposite they may be; and consequently that it is absolutely impossible to find a single organ for instinct. Dr. G. farther states, that there are as many instincts as there are primitive faculties, and that the word instinct designates only the activity of either of these same primitive powers.

Dr. Poole submitted to the inspection of the Members the skull of a murderer and suicide, and related some particulars of the dispositions and character of the individual when living. The cerebral development was in accordance with the character given.

Mr. Smart exhibited a human skull found in a tumulus, near a Roman encampment.

The Meeting adjourned to Thursday, January 4, 1827.

SUCCESSFUL TRANSFUSION.

At the close of Mr. Waller's Lecture on uterine hæmorrhage, delivered on Tuesday last, he informed his class that he had on Sunday again performed the operation of transfusion with success. The lady was of a very delicate habit, and had been the subject of flooding in all her preceding labours. She was the patient of Mr. Brown, a respectable surgeon in Stamford-street, who had made use of the accustomed measures with great promptness, and had succeeded in immediately putting a stop to the hæmorrhage. Notwithstanding his administration of stimuli, however, and the perfect cessation of the bleeding (for there was not the slightest draining,) she remained in that alarming state of collapse, that there appeared no hope of recovering her, except by transfusion. This was performed by Mr. Waller and Mr. Doubleday, aided by Mr. Brown and his assistant, the latter of whom supplied the blood, and the patient was perfectly resuscitated by it. The quantity injected was eight ounces.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

CASE OF SIMPLE FRACTURE OF THE INNER MALLEOLUS BECOMING COMPOUND, AND TERMINATING FATALLY.

T. T., ætat. 43, was admitted into Accident Ward, on the 4th of November, under the care of Mr. Key, on account of fracture of the left inner malleolus, and also of the fibula, about an inch and a half from the ancle.

The patient stated that the accident occurred in walking across the street; his foot became wedged in a gutter, and in this situation he suddenly fell—the foot being violently twisted outwards. Both fractures were very evident, and readily detected; there was considerable ecchymosis over the inner malleolus, with swelling generally about the joint, and the foot was slightly everted. The limb was placed in the straight position with a splint on each side, and an evaporating lotion was applied to the part. In this manner the limb remained until the second day after admission, when Mr. Key found the patient complaining of great pain, and on examining the limb, he discovered that there was great swelling about the ancle-joint with a dark-coloured inflammation that also extended some way up the leg; there was a small dark spot of about the size of a sixpence, immediately over the point of the inner malleolus. Mr. Key now directed the limb to be placed in the bent position, on its outer side, and with a splint placed underneath, taking care to support the foot, which still had a tendency to eversion. Leeches were ordered to be applied around the ancle-joint, the limb to be fomented, and a small poultice laid over the slough, at the malleolus.

From this time, the patient's health seemed to suffer materially, the sloughing did not extend rapidly or to any great degree, but the state of the constitution indicated that something essentially wrong was going on.

On the 15th, he was exceedingly irritable and restless, his pulse was quick and hard; he was bled three times in the space of twenty-four hours, but with little benefit.

On the 17th, the symptoms of constitutional irritation had not all subsided; he was now taking one grain and a half of calomel, with two grains of opium, and three grains of antimonial powder, every four or five hours. The dilute nitric acid lotion applied by means of lint to the ancle, and over this a linseed-meal poultice.

From the 17th until the 20th, the poor man continued much the same; he had a quick, vibrating pulse, the pulse of irritation; the tongue was dry, and brown in the centre; he was exceedingly restless and delirious, almost constantly talking, and wishing to get up. There appeared, however, on the 20th, to be a slight remission of symptoms; but this only continued for a few hours. The quantity of opium was diminished to one grain for a dose.

21. Pulse 110 and sharp, skin hot, tongue parched, great restlessness, singultus and catching at the bed-clothes. The abdomen has a tympanitic feel, notwithstanding that the bowels were freely acted upon yesterday by castor oil; he vomits frequently. The wound at the ancle is still in a sloughy condition. Ordered the saline effervescing mixture, and a small quantity of wine. *Evening.* Seen by Sir Astley Cooper, who directed brandy to be given in lieu of the wine, with a few drops of laudanum.

22. The vomiting relieved; but the poor fellow is evidently sinking, he retains the brandy and laudanum only. Ordered three grains of capsicum with six of carbonate of ammonia, every three hours.

23. Becoming worse.

24. Moribund.

On examining the parts after death, it was found that the fracture through the inner malleolus had extended into the joint; the ligaments were not torn, nor was there any collection of matter about the joint, or

at any part of the limb. The accident, then, at first was a simple oblique fracture through the inner malleolus, extending into the ancle-joint, with consequent displacement of a portion of the tibia. The fracture was rendered compound, as we have seen by a process of ulceration, that took place in the integuments over the inner malleolus.

OPERATIONS.

LITHOTOMY—PECULIAR SITUATION OF THE CALCULUS.

On Tuesday, December 12, Mr. Key performed the operation of lithotomy on a little boy, about five years of age. Mr. Key employed the strait staff and scalpel as usual, and completed the operation in about the space of one minute. The stone was lodged in a part of the bladder, *behind the pubes*, so that it was only felt on withdrawing the sound, and then but occasionally. Mr. Key stated that he had several times sounded the child during the last two years, and until lately had not been able to detect calculus. There was no difficulty experienced in removing the stone, which was of considerable size.

On the same day with the preceding operation, Mr. Key removed a portion of a man's leg, under the following circumstances:—The patient had suffered what is termed naturall amputation at the ancle-joint; the foot had separated at this part from gangrene, following exposure to cold. On the stump, however, there was, an ill-conditioned ulcer, that had obstinately resisted all attempts at cure during a period of three years: the man had been several times in St. Thomas's Hospital, under the care of Mr. Travers. The projecting point of the external as well as of the internal malleolus, of course rendered the surface of the stump uneven, and the weight of the body was consequently entirely thrown on these projecting points, which were simply covered with skin. Mr. Key, therefore, thought it advisable to remove a few inches of the limb, in order to procure a good stump.

The flap-operation was in this case performed; the flap being made from the back of the leg.

A few days after the operation, when Sir Astley Cooper was making his customary hebdomadal circuit of the Hospital, Mr. Key took an opportunity of pointing out the case to the "worthy Baronet," who made what appears to us a very pertinent observation on the merits of amputation performed at a short distance above the ancle; namely, "that the operation was well enough calculated for making a *drawing-room* leg." Sir Astley afterwards explained that by this observation he meant, the operation was suitable for persons who were so situated in life that they could procure an artificial leg, and whose avocations (unlike those of the poor man) would not subject the stump to continual pressure. Baron Larrey, who is no mean authority on this subject, condemns the operation in strong terms. We had an opportunity during his late visit to this country, of hearing him speak of the operation of amputation immediately above the ancle, and he appears still to entertain the same objections which he has brought forward in his surgical memoirs.

HOSPITAL TREATMENT OF BURNS.

We had occasion, a few months since, to point out the very absurd practice which prevails in this Hospital with respect to the treatment of severe burns:—more especially in the congestive stage. It is well known that for some time after the occurrence of a severe burn or scald, as with many other injuries, the vital powers are exceedingly depressed; the heart performs its functions feebly, and the surface of the body and the extremities are cold. In this congestive state (as it is termed,) many patients die, without any reaction taking place. Now the indication for treatment under such circumstances is sufficiently obvious—is indeed so palpable, that it would be an insult to common sense to enlarge upon it. It consists of course, in endeavouring to rouse the heart to action; to establish a reaction in the system, by the judicious employment of stimuli.

Let us see how far these remarks apply to the treatment of severe burns at Guy's Hospital, and take the notes of the following case by way of example.

A child, about 10 years of age, was brought to the Hospital on Wednesday evening, having been severely burned, in consequence of her clothes catching fire. The principal parts injured, were the chest, neck, and arms; the extent of mischief was unequal, in some places the cutis was destroyed, in others the cuticle only had suffered, but there was, throughout the greater part, abrasion of the cuticle. The accident occurred about half an hour before the child was brought to the Hospital. The radial pulse could scarcely be felt, nor indeed could the pulsations of the heart scarcely be distinguished; the surface of the body and the extremities were cold.

The patient being put to bed, *small quantities of brandy with ammonia, were* (very properly) *given*. This we shall, as on a former occasion, style, "*blowing hot*." And now for the "*blowing cold*" in the same breath:—*Equal parts of linseed oil and lime*

water, were applied—COLD, *over the extensive burnt surfaces!!*

We visited the patient on the following morning, and found that reaction had not even then taken place, but in a very imperfect degree. The same "*see-saw*" system had been persevered in, and we remarked, that on each time of applying the cold, the poor child shivered, and it was apparent that the heat of the body, as it was slowly developed, was as quickly suppressed. In the evening, Mr. Callaway saw the patient, and directed the application of turpentine liniment (gently warmed) to the parts; the brandy and julep of ammonia to be continued.

On the *third day* from the receipt of the accident, we found that complete reaction had taken place, and that a state of febrile excitement was substituted in place of the former congestive state. *The brandy and ammonia still continued*, and the turpentine locally.

On the *fourth day* there was a state of high constitutional excitement; the pulse was very quick; the tongue furred and dry; the respiration hurried and thickened; and there was constant thirst, with great restlessness.

On the *fifth* day the symptoms of general excitation were equally severe, but the breathing had now become decidedly affected. The child had, in fact, every symptom of inflammation of the trachea: there was the peculiar croupy sound at each inspiration, with great dyspnœa; the pulse, at the same time, was rapid and bounding; the eyes were suffused, and the temporal arteries were seen strongly beating. The tongue was furred, dry, and brown; the child was constantly desiring drink to quench its thirst; but, on swallowing the fluid, coughing was excited, when the brazen, harsh noise of croup was heard. *The brandy and ammonia were still continued*!!!

On the *sixth day* the symptoms were unabated. *Brandy and ammonia still exhibited*!!

On the seventh day death closed the scene.

The post-mortem examination of this case showed, that which indeed had been manifest enough during life, namely, that the lining membrane of the trachea had been affected with acute inflammation. There was a layer of coagulable lymph spread over the inner surface of the trachea to the extent of several inches; the bronchial passages were loaded with a frothy fluid, and the lungs were in a state of congestion.

CASE OF WOUND OF THE SCALP.

The history of this case is as follows: the patient is a spare unhealthy-looking woman, thirty-nine years of age; she was admitted into Chapel ward under the care of Mr. B. Cooper, on the 21st of November, having received a small contused wound of the scalp on the 15th. The injury was occasioned by her being pushed against a wall with considerable force; she came to the surgery soon after the accident, and the part was dressed with strapping, but the case was not deemed of sufficient importance to be admitted.

On the 19th, that is, four days after the accident, the face began to swell, and she had considerable pain in the head, with much febrile excitement.

When admitted, the upper part of the face was much swollen, and the skin was of a dark red colour, which was unequally diffused. The right eye-lids were closed by the swelling; the whole scalp had a puffy feel, was œdematous and tender on making pressure. There was an oblique wound of the scalp, about half an inch in length, at a short distance above, and to the right side of the occipital ridge. There was, apparently, no discharge issuing from this wound. With respect to the constitutional symptoms, the patient complained of a dull aching pain in the head, with a sense of tightness or constriction; the pulse was quick and small, having some degree of hardness; the tongue was covered with a white fur, but was moist; the bowels were open; she complained of thirst.

The means employed on the day of admission were, shaving the head, and applying a poultice over the wound, with the exhibition of a dose of colocynth and calomel.

24. The swelling of the face rather increased; the febrile symptoms much the same. On the right side of the head the swelling of the scalp is most considerable, and at this part an opening was made, but only a small quantity of serum escaped. The following medicine is now exhibited:—

Calomel, two grains;
Opium, quarter grain;
Tartar emetic, quarter grain, to be taken every six hours.

26. Two openings made in the scalp yesterday, and a large quantity of pus evacuated, with much relief to the patient. Strips of adhesive plaster are applied as in the case of Shean, (related in the last Number, p. 428,) but the matter in this case is more diffused, although less in quantity.

28. Copious suppuration has now taken place. A bandage is applied in lieu of the adhesive strips, and poultices are continued. The patient takes two grains of the sulphate of quinine, with an ounce and a half of the infusion of gentian, three times a day, and is allowed a pint of porter daily; the pulse since the commencement of suppuration having become feeble.

30. Much the same; the plan of treatment not altered; the suppuration is very copious; and the matter is diffused under the tendon, requiring to be pressed out at each time of dressing. There is more febrile excitement than at the date of the last report.

December 1. Not so well; the redness and swelling of the face, which had almost subsided, have now returned. The skin is hot, the pulse quick, and tongue furred; there is thirst, with some uneasiness of the bowels, Ordered the saline effervescing mixture; the same local treatment observed.

4. Better. The febrile excitement has now abated; it appeared to be, in a great measure, attributable to the state of the bowels; which having been freely relieved, the symptoms yielded. The tonic plan is now, again had recourse to; the local treatment is the same; poultices to the wounds, and a bandage applied around the openings, with a view of preventing the further spread of matter under the tendon.

It would be tedious and uninteresting to proceed in any further daily detail of this case, inasmuch as no fresh symptoms arose, and the treatment, consequently, was the same. There was copious suppuration continuing for some time, and portions of dead cellular membrane were thrown off at some of the openings. The bandage was not of that utility in restraining the burrowing of the matter, as the adhesive strips appeared to be in the first case; for notwithstanding its constant application, the matter made its way down the side of the head, nearly as far as the zygoma, requiring an opening to be made at this part in order to evacuate it. The patient, however, did well; and upon visiting her with the dresser on the 12th, we found the suppuration greatly diminished, and the wounds apparently healing fast; the general health much improved.

On the 16th we had again an opportunity of seeing her; the parts had healed rapidly, and she was looking forward to leave the Hospital.

ST. THOMAS'S HOSPITAL.

EXHIBITION OF IODINE IN A CASE OF DROPSY.

We do not know whether iodine has received a fair trial in anasarcous diseases. From the powerful effect, however, which this medicine has on the absorbent system, we can readily conceive that there are certain forms of dropsy, in which the use of such a remedy is indicated, and in which it would probably prove beneficial.

Case. G. W. æt. 15, was admitted under the care of Dr. Elliotson on the 9th of October; he had been ill seven weeks with ascites; passed but little urine, and the bowels were much disturbed. The abdomen was very much swollen, but the legs were not increased, except on sitting up long. Dr. Elliotson directed a small portion of the ointment of iodine to be rubbed over the abdomen twice a-day, for the space of an hour, and to take six minims of the tincture of iodine three times a-day. The report made on the 18th was, that the abdomen was much softer and smaller, that the urine was much increased in quantity, and the diarrhœa had ceased. He was ordered on the 14th to take ten minims of the tincture three times a-day. On the 21st, the dose was increased to 15 minims, and on the 23th to *twenty minims*. On the 5th of November, we found him much improved in appearance, the swelling of the abdomen greatly diminished; the use of the iodine still continued, both externally and internally. The appetite was so much improved, that he was allowed a mutton chop, having been previously kept on a milk diet. On the 18th and 21st, the reports were, that he was much better. It is to be regretted that his friends shortly after this thought proper to remove him from the Hospital, so that the full value of the treatment in effecting a perfect removal of the disease, was not satisfactorily ascertained. So much benefit had, however, been derived from it, that Dr. Elliotson remarked, it was his opinion the disease would have been entirely got rid of by a continuance in the use of the iodine.

RETENTION OF URINE FROM THE LODGMENT OF A CALCULUS IN THE URETHRA.

A boy, apparently about six years of age, was brought to the surgery by his mother, for the purpose of obtaining Mr. Green's advice on account of great difficulty and obstruction which the child experienced in passing his urine. It appeared from the mother's statement, that about ten months ago the boy was in the Hospital, under the care of Mr. Green, being supposed to have calculus in the bladder, but, subsequently the symptoms became so much alleviated by the use of medicine, that he was dismissed from the Hospital without having undergone any operation. The child's mother informed Mr. Green, that for two preceding days he had suffered great inconvenience in passing urine; she said that it only came away by a few drops at a time, and with great pain.

Mr. Green proceeded to pass a small sound down the urethra, which readily went as far as the bulbous portion, and here became obstructed by some hard substance, supposed by Mr. Green to be a calculus. At-

tempts were therefore made, by means of a pair of dressing forceps, and also with two probes, to extract the supposed stone, but without success. Mr. Green not having a pair of urethra-forceps at hand, and being fully satisfied that there was no urgency of symptoms, the bladder not being distended, he directed the child to be brought to the Hospital on the following day, when, with a proper instrument, he proposed attempting to extract the foreign body.

On the following morning the woman again presented herself with the child at the surgery: there was now complete obstruction to the discharge of urine, and the bladder was enormously distended, reaching even higher than the umbilicus. It was ascertained, by passing the sound, that the obstruction existed at the same point, and as the symptoms had now become urgent, Mr. Green, on seeing the child, immediately resolved to make an incision in the urethra. The part at which the foreign body was lodged, was at the anterior commencement of the bulbous portion of the urethra, consequently at a narrowed part of the canal, and immediately opposite the fore part of the scrotum. The portion of urethra immediately in front of the scrotum was very tender on pressure, and the integuments of the scrotum itself were red and swollen, apparently from slight effusion into the cellular substance consequent upon inflammation. An incision was made along the line of the raphè to a considerable extent, dividing also a portion of the integuments of the scrotum; and it was now satisfactorily ascertained, that the cause of obstruction was a calculus which had become firmly impacted in this part of the urethra. By means of a probe, Mr. Green succeeded in dislodging it, when it proved to be about the size of the tip of the little finger, and in shape resembling a grape stone. It is a circumstance worthy of remark, that on the removal of the calculus, the bladder did not contract, so as to expel its contents, and it was necessary to introduce a catheter in order to draw off the urine.

There was no particular symptom succeeding the operation; no extravasation of urine into the cellular substance of the scrotum, which was a circumstance, from the peculiar situation of the incision, likely to occur. The urine continued to pass freely through the wound for several days, when a granulating process commenced, and at length the continuity of the urethral canal was restored.

Mr. Green informed the pupils, that he repeatedly sounded the child during its former sojourn in the Hospital, but was unable to detect the presence of a calculus. The symptoms under which the child laboured, he said, however, were those characteristic of stone in the bladder; and such was his opinion then; the present event had confirmed the diagnosis.

RETENTION OF URINE, FROM STRICTURE IN THE URETHRA.

The following case, which occurred a short time since at this Hospital in the practice of Mr. Travers, may be usefully related here, in conjunction with the preceding:—

J. Preston, ætat. 28, admitted on account of retention of urine. He stated, that he had laboured under a difficulty of passing his urine upwards of two years; that he had, on some occasions, complete retention, which was relieved by the introduction of instruments, but that on other occasions his water flowed in a small and interrupted stream. For two months preceding his admission into the Hospital, the symptoms had been much aggravated; and, for two days prior to admission, he had passed but a very trifling quantity of urine. He complained of much pain and constant desire, with like inability to minge; the bladder was distended, and painful on pressure, and there was considerable febrile excitement.

Mr. Travers saw the patient a short time after he was admitted, and when the dresser had been making some attempts to pass a catheter, Mr. Travers introduced a moderate size silver catheter, and found a very firm stricture at the commencement of the membranous portion of the urethra. After nearly half hour had elapsed in making attempts, Mr. Travers at length succeeded in *forcing the stricture*, and carried the instrument onward into the bladder. The force employed in passing the point of the catheter through the obstruction was very considerable, but the hæmorrhage from the urethra was not great. The poor man experienced much relief from the emptying of the bladder: the catheter was left in. As there was much tenderness of the abdomen, leeches were directed to be applied to the part, and also to the perineum, with the subsequent use of poppy fomentation: a dose of castor oil to be given immediately.

Nothing material occurred subsequently in this case, so as to render a daily detail necessary. It will be sufficient to observe, that the catheter was withdrawn a few days after its first introduction, when the patient was able to pass his urine in a tolerably full stream. A catheter or sound was introduced daily for about a week, and it passed with little or no obstruction. About the expiration of this time, however, the patient complained of much pain in the perineum, with irritation at the neck of the bladder: he had also rigors, which were followed by some febrile excitement. These symptoms led to

the fear of an abscess being about to form in the perineum; such, however, was not the result: under the application of leeches, with the exhibition of a purgative, the patient returned to his former state of health; and he was dismissed from the Hospital a short time after, being quite well, and enabled, as Mr. C. Bell would say, "to make water without splashing his silk stockings."

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF CONICAL CORNEA IN BOTH EYES, WITH LEUCOMATOUS OPACITY.

A stout strong young woman, ætat. 19, came to the Hospital, August 4th, with conical cornea; the cornea of both eyes was affected. It had lost its regular convexity, being elevated into a conical protuberance, with leucomatous opacity at the apex of the cone. When the eye was looked at laterally, it was easily seen the cornea did not present its natural convexity, but was elevated into an obtuse cone. The cornea, with the exception of its leucomatous apex, appeared perfectly transparent, and exhibited no deviation from its natural structure; the iris was natural; in fact, no morbid alteration in the organ, save this change in the cornea. This change, along with the opacity, of necessity greatly interfered with the function of the organ. Mr. Lawrence held up his hand, not far from her face, but she was unable to distinguish any such object; she said she had some indistinct perception of gentlemen around her. She said the left eye had been thus affected for two years; that it came after she had an inflammation in her eyes, for the cure of which her medical attendant was desirous of bleeding her, but to which she objected; and that when she recovered, the eye presented its present appearance. That about five weeks ago, the right eye had a similar attack of inflammation, but she would only allow one leech to be applied, and the eye was left in the same state as the other. She stated she has a brother and sister alive, who labour under the same disease, having attacked them about the same age, and that a sister died, affected with it likewise; thus making four in one family afflicted with this lamentable irremediable disease. As far as we could learn, the period of the accession of the complaint in the three cases, bears out Mr. Phipps in his observation, that "it is a change sometimes taking place at the age of puberty." He never observed the affection in persons under the age of 14 or 16. All the authorities we have been able to peruse on this disease, speak as having seen it in one eye only, save Leveille* and Burgman, who saw a remarkable case where the corneæ of a person who had been hanged were so prodigiously distended, that they reached down to the mouth like two horns. The case is quoted by Mr. Wardrop in his Essays on Morbid Anatomy of the Eye, from Haller's Disputationes Chirurg. Tom. II.

About three weeks ago, there was a case (at the Eye Infirmary, Moorfields) of the same disease in both eyes, fully answering the description given by Mr. Wardrop in the above mentioned work; the apex of the cornea resembling a piece of solid crystal, and to one placed immediately in front of the patient it had a transparent sparkling appearance, which prevented the pupil and iris from being distinctly seen. The medical men in Dublin had punctured the cornea for emission of the aqueous humour several times, but which operation had neither been attended with improvement in vision, nor cessation of disease. Mr. Lawrence at first said nothing could be done for the patient, but afterwards the idea suggested itself of tearing away a portion of the iris at its ciliary attachment, thereby enlarging the pupil, and giving her the only chance with the application of belladonna which remained. He ordered her to leave off drinking porter, to take gr. ij. of calomel, and xij. of jalap immediately; two grains of calomel, and four of compound extract of colocynth every other night, and to have three or four drops of the solution of extract of belladonna; ℈i. to ʒi. dropped into the eye every night and morning, and said he would speak to Mr. Wardrop upon the propriety of the operation, who had previously seen the patient at the Hospital of Surgery, Panton-square.

The patient came the following week as desired; but as the belladonna had exerted its full influence on the iris, without any adequate improvement of vision, Mr. Lawrence seemed to be of opinion it would be needless to perform the operation, as the present enlarged state of the pupil had not in the least contributed to the furtherance of that grand object

CASE OF CHRONIC IDIOPATHIC IRITIS.

A stout female, of fair complexion, a cook, æt. 31, was admitted under Mr. Lawrence with iritis of the subacute form; the disease had existed for three weeks. It had arisen so slowly, that the girl was quite ignorant of the state of the eye, and the

* Traite sur les Maladies des Yeux, traduit de l'Italien de Scarpa, par J. B. F. Leveille, Tom. II. p. 179.

complaint only first attracted her attention when she had lost vision in the left, in consequence of the effusion of lymph, and its organisation into adhesion. There had been no pain felt in the part, no redness, in short, no premonitory sign or symptom indicating the approach or presence of disease.

She went to the Eye Infirmary in Moorfield's, on August 3d, from which Mr. Lawrence had her brought to the Hospital, when the following appearances presented themselves:—

Both eyes were attacked; in the left the inflammation bore the more active character. There could be observed the circular arrangement of vessels on the sclerotica at its junction with the cornea, affording the zonoid appearance present in iritis, caused by the state of excitement in the iridal arteries; the redness being deepest round the cornea, and fading towards the periphery of the eye-ball. The iris had undergone the usual change from grey, its natural colour, to a dirty, muddy appearance. In conjunction with this change of colour, there was complete loss of its natural brilliancy; its radiated fibrous texture appearing dull and confused. These appearances (caused by the mixture of the effused yellow lymph, with the natural pigment of the iris) were more observable on the pupillary margin, which had lost its peculiarly sharp and well defined edge, and become thickened and of a spongy texture. Effusion had taken place from the uvea and posterior pupillary margin, and, in the usual sequence, partial adhesion to the capsule of the crystalline lens. The pupil was contracted and irregular, and motion nearly destroyed by the change in structure and preternatural connexions. She was ordered to be cupped upon the neck to ʒxvi, and to take four grains of calomel, and twelve of jalap, immediately; two grains of calomel, and one-third of a grain of opium every six hours; to have the extract of belladonna applied to the eyebrow; to be put upon milk diet, and to wear a shade.

Friday, August 4. It is curious to observe the effect of the belladonna on the iris of the right eye; the pupil has a pectinated or stellated appearance, caused by the contractile efforts of the iris in its attempt to liberate the pupillary margin from the anterior capsule. Mr. Lawrence pointed it out as an excellent instance of the powerful influence of belladonna; the narcotic had not affected the left eye in like manner, from the iris being more inflamed, and, consequently, incapable of motion. He remarked it was a curious circumstance, that the iris should have been attacked, and not the retina; it seemed more like, *a priori*, that the latter should suffer from the light and heat of large fires (with which the patient had been occupied during extreme warm weather) than the former, which is so habituated to the stimulus of light. The mouth is not yet under the influence of mercury.

August 7. Mouth now sore; the mercury has arrested the adhesive inflammation, and put a stop to the effusion of lymph, while that already effused is being rapidly absorbed under its action. The irides are assuming their natural colour; the red zone around the right cornea is gone, and perfect vision restored. In a short time she left the Hospital entirely free in both eyes from any remains of the attack.

There have been two operations this week by Messrs. Vincent and Lloyd. The one a case in which very bad strictures having existed, the bladder had been punctured above the pubes for retention of urine about twelve months ago. Mr. Lloyd had employed the usual means for curing the stricture; but before this object was obtained, the man went suddenly to another part of the town; he heard no more of him until lately, when he made his appearance with a bougie in the bladder: the man, since the bladder had been punctured, had worn the bougie in the aperture, and it had slipped in. Mr. Lloyd, previous to the man being brought to the Hospital, had endeavoured in vain to extract it by the polypus forceps and other means; he determined, then, to enlarge the puncture. On Saturday he introduced into the aperture Mr. Key's straight staff, and upon it enlarged the opening with a blunt bistoury; then introducing the polypus forceps, he easily extracted the piece of bougie coated with a considerable earthy deposit. No calculi were detected.

The other operation was performed on Sunday by Mr. Vincent, for the liberation of a strangulated femoral hernia.

The woman, æt. 65, had been subject to irreducible hernia for ten years; the fresh descent had taken place on the Tuesday previous to her admission; the usual means for reduction had proved abortive; the hernia was the size of a large fist; the usual symptoms of strangulation were present; she had had no alvine evacuation during six days. The hernial tumour being laid open, a large piece of thickened omentum, and a loop of intestine (the latter of a chocolate colour, and coated with a layer of lymph) were detected strangulated by Gimbernat's ligament; this being divided along the attachment to the bone, the gut was returned; the omentum cut off, no vessels requiring ligature, and a little lint laid upon the incision. The patient is going on very well.

WESTMINSTER HOSPITAL.

CASE OF POPLITEAL ANEURISM; FEMORAL ARTERY TIED; AMPUTATION PERFORMED.

G. B., a stone-mason, aged 30, was admitted into the Hospital on December 18, having a large swelling in his leg, under the care of Sir Anthony Carlisle.

He stated, that in September last, he perceived for the first time a small swelling in the ham, about the size of a walnut, the pulsations of which the patient compared "to the beating of a clock." There was at this time considerable pain in the limb, extending from the heel toward the tumour. He consulted a surgeon at Pimlico, who recommended him to use a fomentation, which afforded slight relief. In the middle of October the leg began to swell a little, but did not increase much until the week before the patient came to the Hospital. The pulsatory motion in the ham ceased when the leg began to swell.

20. The leg is now become of twice its natural size, exceedingly tense, and of a dark brown colour. There is evidently a fluid of some sort deeply seated in the limb, and in considerable quantity. The countenance is pallid; the pulse 120, and very weak. The circumference of the calf of the leg is rather more than nineteen inches.

23. The tenseness has increased; the patient does not complain of much pain, but says that he has rather more by night than by day. The limb measures half an inch more than on the 20th. Pulse 130. A consultation was this day held on the case in the operating theatre, when a considerable difference of opinion prevailed. Sir A. Carlisle distrusted the history which the patient gave of his case, and observed, that it might have been abscess in the ham, which being seated over the artery, would have had a pulsatory motion given to it. This abscess might have burst at the time the patient described the swelling to have commenced in the leg, and the matter might have found its way among the muscles of the calf. He said that if it were a diffused aneurism, it must have burst in a much shorter time than any case he had before seen. He could not help thinking, therefore, that it was an abscess. Messrs. Lynn and Guthrie were of a different opinion; they considered that it was an aneurism. Mr. Lynn, sen. opined that the coagulum would press upon the artery, and obliterate it, and that the coagulum would ultimately discharge itself by causing sloughing of the integuments, and that in this way the "*case would cure itself!*" As they could not all agree in opinion, it was determined *to do nothing*, and to have another consultation on the case, on Wednesday the 27th. In the mean time a tourniquet was put on the limb, in case the tumour should burst. So that it was advisable that the man should have the tourniquet on; but was it equally advisable that he should be left in jeopardy of his life for four days?

27. The leg had become larger; it was more discoloured and tense than on the 23d, and it was now agreed that by *way of exploration*, the tumour should be opened. The man was accordingly placed on the table, and Sir Anthony made an incision into the depending part of the swelling. Some coagulated blood flowed out, and the incision was extended about two inches, to let out more of the coagulum, when about a pound of it escaped. A large quantity of arterial blood now gushed out, evidently from a large vessel. The inguinal artery was compressed at the groin by Mr. Guthrie. The question was agitated, whether it would be better to amputate the limb, or to tie the femoral artery. It was decided by the majority, first to tie the femoral artery. Sir Anthony accordingly tied it in the usual place for popliteal aneurism. The remainder of the coagulum was then removed by introducing the fingers into the tumour in the leg, when arterial blood was observed to flow from the lower part of the wound. Amputation was considered preferable to searching for the bleeding vessels. Sir Anthony, commencing from the point at which he had secured the femoral artery made a flap of the muscles on the inside of the thigh, and proceeding from the same point made a similar flap on the outside, and the limb was soon removed. The patient was on the table about forty minutes. The amount of blood lost altogether was about *six pounds*.

On *examination* of the amputated limb, the aneurismal sac was found seated rather lower than usual, the anterior and posterior tibial and peroneal arteries passed out from the sac. The extravasated blood had passed between the gastrocnemius and soleus muscles, and had separated them considerably from each other.

Since the amputation the patient has been going on tolerably well up to this time, (January 1) under the usual treatment adopted in such cases.